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Medical Professional Liability and the Delivery of Obstetrical Care

VOLUME I

INSTITUTE OF MEDICINE

Medical Professional Liability and the Delivery of Obstetrical Care

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Committee to Study
Medical Professional Liability and the
Delivery of Obstetrical Care

Division of Health Promotion and
Disease Prevention

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This report has been reviewed by a group other than the authors according to the procedures approved by a Report Review Committee consisting of members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

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Chairman's Preface

The topic of medical professional liability has been of great concern to the Institute of Medicine (IOM) for more than a decade. In 1975 the IOM was poised to make its own examination of what then was called a "crisis" in medical care brought about by medical malpractice insurance difficulties. But events were outpacing the effort; in particular, a number of state legislatures were moving to ease the burden of lawsuits and thereby hold insurance premiums in check. The focus of the 1978 IOM study became, as its report title stated, *Beyond Malpractice: Compensation for Medical Injuries*.

Nearly ten years later the IOM was approached by the American Academy of Pediatrics to examine a different part of the medical professional liability spectrum: whether access to health care for infants and children was being compromised. The IOM conducted an extensive evaluation of the proposal, including a canvass of local and state legislators and representatives of special interests involved in matters of professional liability. From this examination it became obvious that the current liability situation, apparently acute even after a decade of prodigious efforts to reform tort law, merited a closer look.

Many studies had charted claims frequency and severity, rising insurance premiums, and other possible causes of the problem, but little scholarly notice had been taken of the effects of the problem on the delivery of care or of the policy implications of these findings. The IOM believed that it was important to make an extensive appraisal of existing data on medical professional liability available to policymakers.

To conduct this study, the IOM assembled an interdisciplinary committee of 15 people with expertise in obstetrics, pediatrics, family and general medicine, diverse areas of law, medical ethics, health services research, insurance, economics, nursing, and public policy. Consistent with usual IOM practice, these persons were not appointed as "representatives" but rather as distinguished experts who were familiar with the views of diverse constituencies yet not beholden to them. For this reason no specific representative of any professional association, trade association, or advocacy group served on this committee. The committee made a concerted effort to take the views of these parties into account, while at the same time consistently and repeatedly reminding itself that its purpose was to serve the public interest and the concerns of patients.

Originally, mindful that other studies were examining medical malpractice issues and the tort system more broadly, the IOM charged this committee with examining the effects of medical professional liability on the delivery of maternal and child health care. However, early in its deliberations the committee decided to narrow its scope even further, focusing exclusively on the effects of medical professional liability on delivery of and access to obstetrical care. There were several reasons for this. First, the committee was committed to investigating how professional liability concerns are changing patterns of health care delivery and affecting access to care. Preliminary evidence available to the committee indicated that obstetrical providers, compared with colleagues in most other specialties, appeared to be affected disproportionately. Second, the committee was of the opinion that in the child health arena product liability issues (related primarily to vaccine injuries) overshadow professional liability issues to such an extent that it did not seem appropriate to go beyond obstetrics in this study. Finally, the committee believed from the beginning that the issues posed by professional liability in obstetrics in some ways could be representative of the issues posed by professional liability concerns to the health care system as a whole. By analyzing this one subsection of the health care system in detail, the committee hoped to make a contribution to the understanding of the overall problem, although the reader will note that care was taken to restrict recommendations to the obstetrical area.

To pursue its task, the committee commissioned more than 20 papers by distinguished experts in various fields, commissioned 3 surveys to gather new data, and reviewed more than 50 surveys bearing on the medical malpractice problem in obstetrics. In addition, it held an interdisciplinary research symposium on June 20, 1988, with Secretary of Health and Human Services Otis R. Bowen, M.D., as the keynote speaker. The commissioned papers, which served as background for the committee's deliberations, will be published by the National Academy

Press as a companion volume to this report under the title *Medical Professional Liability and Obstetrical Care: Volume II, An Interdisciplinary Review.*

It is customary for IOM committee members to both contribute to and profit from the very process of interrelating among the various disciplines, perspectives, and points of view usually represented. I must extend a special vote of thanks to our committee members who worked with each other across their divergent disciplinary concerns. No one could have asked more of a committee than this one gave to its task.

I want to thank Sam Thier, who helped us from the project's initiation to its conclusion. Enriqueta Bond, who served as the division director, helped us launch the study through its initial phase; subsequently, Marian Osterweis took Queta's place in helping the committee and staff director in a variety of ways. Adam Yarmolinsky, a long-time member of the IOM, helped us informally but generously at various times during the study, even leading the group through one meeting on the thorniest legal matters.

I must, however, reserve my greatest expression of thanks and admiration (an expression that I know is shared by my colleagues on the committee) for Victoria Rostow, who saw the project through from beginning to end as the staff director. Her intellectual and substantive work was invaluable; she did a superior job.

On behalf of the committee, I would like to thank the various reviewers of the manuscript; their efforts significantly improved the report.

Finally, I would like to thank Helen Schindler for her faithful and proficient handling of the manuscripts.

ROGER J. BULGER
Committee Chairman

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Medical Professional Liability and the Delivery of Obstetrical Care

1

Summary of Conclusions and Recommendations

During the past decade, medical professional liability issues have been of great concern to health care providers, insurers, patients, and state legislators. Much has been written about the financial and legal aspects of the problem, such as the cost of insurance and the size of jury awards. Much less attention has been devoted to analyzing the effects of medical professional liability issues on the delivery of health care and the practice of medicine.

MEDICAL PROFESSIONAL LIABILITY CONTROVERSY

There is no consensus about the cause of the medical professional liability controversy in the health care delivery system, except that most observers agree it is unlikely that any single factor is responsible. Physicians and other health care providers tend to blame attorneys, whom they allege are encouraging plaintiffs to bring nonmeritorious medical malpractice suits. Attorneys, joined by some consumer advocates, frequently argue that the increased number of suits reflects an increase in negligent medical practice. Still another view is that patients are more willing to sue their physicians, partly because of the rapidly increasing costs of medical care and the failure of physicians to establish effective relationships with their patients. It is also suggested that the roots of the medical professional liability problem lie in the insurance industry and its management practices.

In response to proliferating malpractice claims,[1] 49 of the 50 states enacted tort reforms in the past decade to modify medical malpractice liability laws. These attempted remedies often have included limits on awards to plaintiffs and attorneys and changes in tort doctrine. Despite these legislative reforms, the number of medical malpractice claims has continued to increase during this period. The number of claims filed against physicians nationwide rose at an average rate of 10 percent per year from 1982 to 1986 alone. Not only were there more claims, the severity of the claims—that is, the amounts paid out in both jury verdicts and settled claims—has risen considerably.

Medical malpractice insurance premiums have reflected this upsurge in claims and payments. The American Medical Association (AMA) estimates that premiums for all physicians increased 81 percent between 1982 and 1985; premiums for obstetrician-gynecologists averaged an increase of 113 percent during the same period. Premiums are affected not only by the frequency and severity of claims but also by the high cost of processing them.

PROBLEM MOST ACUTE IN OBSTETRICS

These trends have been most pronounced in the practice of obstetrics. Claims against obstetrician-gynecologists are currently two to three times more numerous than the average for all other physicians and are comparable only to a handful of other high-risk surgical specialties. According to a 1987 survey by the American College of Obstetricians and Gynecologists (ACOG), 70 percent of obstetricians reported that they had had at least one claim filed against them at some time in their careers. The U.S. General Accounting Office (GAO) reports that the claims frequency for all physicians was 16.5 per 100 physicians in 1984, ranging from 8.6 in Arkansas to 35.7 in New York.

These numbers mask another story: the continued increase in the frequency and severity of claims against obstetricians is compromising the delivery of obstetrical services in this country; that effect, in turn, is reducing access to obstetrical services for certain groups of women. The committee devoted much of its resources to investigating and documenting the problems posed by professional liability in obstetrics, both in the delivery of and access to care and in the way in which obstetrics is practiced.

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[1] The term "claim" is used throughout this report to refer generally to complaints lodged with medical malpractice insurers alleging violations of the standard of care. Insurers are not uniform in their usage of the term. Many claims are accompanied by lawsuits; others are resolved, or closed, without suit.

LIABILITY'S BROADER SCOPE

In approaching the medical malpractice issue the committee was keenly aware that the U.S. civil litigation system generally has undergone explosive growth in certain kinds of tort liability in recent years. This growth has attracted wide attention because of dramatic, often breathtaking, jury awards and settlements. Premiums have risen substantially for many lines of commercial liability insurance. Moreover, the general explosion in litigation is being blamed by some persons for slowing growth in productivity, thwarting research and development efforts, and consequently undermining the competitive position of the United States. These persons contend that only fundamental reform of the American civil justice system will solve these problems. Others deny that there is a tort liability difficulty, arguing instead that the problem lies with the insurance industry. In their view, insurance companies have made enormous and costly underwriting errors that have been compounded by slowed returns on their portfolio investments and have engaged in collusive behavior. The proffered solution is rigorous regulation of the insurance industry.

Acknowledging that the problems posed by medical professional liability are part of a broader controversy, the committee nevertheless concluded that medical professional liability exhibits special features that will most likely require unique solutions. Accordingly, the committee evaluated data relating only to the medical professional liability problem and evaluated proposed legal solutions only as they addressed medical professional liability issues.

Many believe that the medical professional liability problem is exacerbated by inflated consumer expectations of modern medicine coupled, paradoxically, with declining respect for the medical profession. There is no question that the American public expects a great deal from modern medicine. Public opinion polls consistently reveal that Americans want early benefits of advances in medical technology and that they are willing to pay even for risky and inordinately expensive treatments such as organ transplantation and artificial organs. Further, it seems that many Americans expect the medical system not only to treat their ills but to cure them as well.

Many observers have written about the changing public perception of the medical profession. Viewed as virtually infallible earlier in this century, physicians now are increasingly being regarded warily by some patients. The rapid transformation of the health care delivery system in the decades since the enactment of Medicare and Medicaid has contributed to this lack of confidence. The phenomena of corporate for-profit medicine, proprietary chain nursing homes and hospitals, commercial laboratory services, health maintenance organizations, preferred provider plans, and other market-oriented approaches to health care delivery can transform the doctor-patient relationship into a producer-consumer relationship. Behind many medical malpractice claims is a disappointed consumer who believed he or she was purchasing a cure, is disappointed with the results, and, often without any other avenue of compensation, is seeking relief through the legal system.

ETHICAL CONSIDERATIONS

Ethical issues loom large in any serious policy debate of the medical professional liability problem in obstetrics, yet they are among the most difficult issues to resolve in a morally pluralistic society. As a result, there is a tendency to concentrate on procedural, pragmatic, and consensus-forming positions rather than on more substantive ethical issues, about which disagreement is likely to occur.

The committee recognized that the pragmatic approach is the only feasible one when confronting ethical issues as complex and volatile as those arising from society's obligations to care for mothers and infants. Although ethical matters deserve more attention than the committee was able to devote to them, the committee believed that it was important to raise the issues and to state the ethical assumptions underlying its recommendations. By doing so, it hoped to heighten the public's awareness of the complexities in the problem of obstetrical malpractice.

The ethical issues deemed most important by the committee were grouped under two headings: (1) the obligations of society to pregnant women and to fetuses and (2) the obligations of the medical professions to pregnant women and to fetuses. The fundamental question regarding the obligations of society is whether or not pregnant women and fetuses have some moral claim on society that entails access to obstetrical care. If they do, how does it square with other legitimate moral claims for other forms of health care by other members of society? For example, what is society's obligation to a damaged infant? How should society balance the claims of damaged infants against the claims of other sick persons?

The obligations of the health professions to pregnant women and to fetuses depend on the way health professionals are regarded. If they are seen to be like any other service profession in the U.S. economy, only one obligation is entailed: competent performance of tasks that are contractually bargained for in the marketplace. In ordinary market transactions, producers of goods and services are not required to abnegate self-interest to any appreciable degree. The medical profession, however, has long instilled a different ethic in its members, who are generally expected to have a fiduciary relationship with their patients. The committee does not view its role as prescribing moral standards for health care providers. It does believe, however, that any permanent solution to the obstetrical medical professional liability problems outlined in this report will require that health professionals, policymakers, and legislators consider carefully what the ethical obligations of obstetrical providers are in such matters ensuring equity in access of care.

STUDY FOCUS AND FINDINGS

The committee grouped its inquiry into six areas: (1) the delivery of maternity care in the United States, (2) the effects of medical professional liability issues on the availability of obstetrical providers, (3) the effects of medical professional liability issues on access to obstetrical care for particular segments of the population, (4) the effects of professional liability issues on the practice of obstetrics, (5) the role of the insurance industry in obstetrical professional liability issues and their resolution, and (6) an evaluation of the current tort litigation system for resolving medical malpractice claims and various alternatives to the tort system that have been proposed. Chapters 2 through 7 present detailed discussion of these six areas of inquiry. Brief descriptions are given below.

Maternity Care in the United States

Maternity services in the United States are delivered by three groups of providers: obstetrician-gynecologists, other physicians (primarily family physicians), and other practitioners, including certified nurse-midwives and, in some states, lay midwives. Most obstetrical care is provided by obstetrician-gynecologists, who practice primarily in metropolitan areas. According to estimates prepared for the committee, family physicians provide two-thirds of all private obstetrical care in rural areas. Thus, most women receive prenatal care in private physicians' offices, whether from obstetrician-gynecologists or from family practitioners. Approximately one in five, however, receives care from a public provider, such as a hospital outpatient department, a Community or Migrant Health Center, or a health department. There are 2,000 to 2,500 practicing certified nurse-midwives in the United States, and more than one-third of them practice in areas in which most of the patients are poor.

To analyze the effects of medical professional liability problems on the supply of obstetrical providers and on issues of access, the committee attempted to find out how much obstetrical care is needed in the United

States and what determines the need. Estimating need is difficult because of the number of variables involved. However, two clear observations emerged: (1) there is mounting evidence of existing shortages of obstetrical care, especially for poor women in rural and inner-city areas, and (2) there is good reason to believe that the need for obstetrical services in the United States will increase in the near future. The evidence presented in this report that professional liability problems are driving physicians and other obstetrical providers from practice and raising barriers to access must be understood as one element of a broader problem of impaired access to obstetrical services for some American women.

Availability of Obstetrical Providers

Numerous reports in recent years have averred that obstetricians, family physicians, and nurse-midwives are increasingly eliminating or limiting obstetrical practice because of professional liability problems. Review of existing data and new studies commissioned by the committee addressed the following questions: Are obstetrical providers eliminating or limiting obstetrical practice? Are high-risk women underserved? Are obstetrical services in short supply in rural areas?

The committee reviewed the results of 30 surveys in 23 states, along with 9 national studies, relating to the question of whether professional liability worries are causing providers to eliminate obstetrical practice. The data suggest that significant numbers of each of the provider groups studied are eliminating obstetrical practice, or limiting it earlier in their careers than they might otherwise have done, because of professional liability concerns. In addition, significant numbers of obstetrical providers report that they are cutting down on services to high-risk women because they fear being sued. Although this reduction in available obstetrical care may affect the entire population, the evidence suggests that it particularly affects low-income women.

From an examination of 21 state studies and 5 national studies addressing professional liability issues and their effects on family physicians, the committee concluded that the proportion of family physicians giving up obstetrical practice is even higher than the proportion of obstetricians. The delivery of obstetrical services in rural areas is seriously threatened by this development. Estimates prepared for the committee indicate that the number of obstetrical providers in nonmetropolitan areas has fallen by approximately 20 percent in the last five years.

Obstetrical Care for Poor Women and Women Served by Medicaid

Numerous authors have expressed alarm about the relationship of professional liability issues, physician participation in Medicaid, and the access of low-income women to obstetrical services. Drawing primarily on the studies done by state and national organizations over the past several years, the committee attempted to determine whether the sense of alarm is justified and, if so, how the issue might be addressed. The general reductions in obstetrical practice among obstetricians, family physicians, and nurse-midwives reported in both state and national survey data appear to have a disproportionate effect on the availability of care for low-income women. Further, every relevant study identified by the committee found that physicians are increasingly reporting a reduction in their Medicaid caseloads, at least in part because of professional liability concerns.

Because Community Health Centers and Migrant Health Centers are a vital source of obstetrical care for low-income women, the committee decided early in its deliberations to commission a survey of the effects of medical professional liability issues on the delivery of care in these centers. Data were gathered from a random sample of 208 center directors during April and May 1988. Sixty-seven percent of the respondents to the survey indicated that professional liability concerns reduced their center's ability to furnish obstetrical services or the scope of services they could offer.

Much of the data relating to the question of whether medical professional liability concerns are causing physicians to reduce obstetrical care to low-income women are imperfect or indirect. After putting the pieces of this puzzle together, however, the committee is persuaded that the effects of professional liability concerns in obstetrics are being disproportionately experienced by poor women and women whose obstetrical care is financed by Medicaid or provided by Community and Migrant Health Centers, and that this problem is, in turn, exacerbating the longstanding problems of financing and delivering obstetrical care to poor women.

Practice of Obstetrics

How do medical professional liability concerns affect the way in which obstetrics is practiced? The committee reviewed survey data documenting changes that obstetrical providers have made in response to professional liability concerns. The committee also conducted an informal survey of academic medical centers to determine the effect of professional liability concerns on the training of obstetrical residents. Although it is difficult to study, the committee also deemed it crucial to examine the effect of professional liability concerns on the physician-patient relationship. The committee commissioned papers on the subject and heard numerous reports by physicians describing the changes that professional liability concerns have created in this relationship.

Professional liability concerns have brought about a variety of changes in the way that obstetrics is practiced in the United States. In the committee's view many of these changes have benefited patients. In particular, the committee noted that physicians have improved their recordkeeping, increased discussion with patients, increased their use of informed-consent documentation, and paid greater attention to their relationships with their patients. In addition, some committee members believed that, in response to liability concerns, physicians have increased diagnostic testing, some of which may be appropriate.

Other changes worried the committee. After studying the data related to the rise in cesarean deliveries in the United States, the committee concluded that concerns about medical professional liability are among the factors causing the rise. Similarly, after reviewing the data indicating that electronic fetal monitoring has not improved overall outcomes, the committee concluded that professional liability concerns are at least partly responsible for the continued use of this technology.

The committee also conducted an informal survey of 132 heads of obstetrics and gynecology departments at university hospitals and academic medical centers in the United States. Many report that medical professional liability concerns are having an adverse effect on the training of obstetrical residents. They report that the current legal climate makes it difficult to provide residents with appropriate responsibility and that the cost of medical malpractice insurance for obstetricians is impeding the ability of academic medical centers to hire obstetrical faculty.

Obstetrical Malpractice Insurance

Because of the controversy surrounding the role of the insurance industry, the committee commissioned an outside study of the structure of the obstetrical malpractice insurance market, the availability and affordability of insurance, and the actual effect of the insurance industry on the obstetrical malpractice problem and its solution. In addition, the committee commissioned a survey of risk management activities implemented by insurers.

The committee found consensus that the crisis of availability of medical malpractice insurance for physicians that existed in the mid-1970s was adequately addressed by the creation of physician-owned companies, joint underwriting associations, and the conversion to claims-made policies. There is, however, continued concern in most quarters about the affordability of medical malpractice premiums and the availability of insurance for nurse-midwives. After studying the question of whether medical malpractice premiums are affordable, the committee concluded that it was difficult to determine whether the premiums constitute a real economic burden for obstetrical providers. Data suggest that obstetrician-gynecologists as a group have maintained their average net real income in the decade between 1975 and 1985. However, the committee notes that these national statistics mask huge variations among obstetrical providers by region and experience. The data also strongly indicate that premiums are a greater burden for family physicians and nurse-midwives than for obstetrician-gynecologists.

In its limited inquiry of the matter the committee found no evidence in major published studies available as of August 1988 to support claims that excessive profit taking on the part of insurers has been a major contributor to the medical malpractice problem in obstetrics. The principal factors in the growth of premiums appear to be changes in the frequency and severity of claims and the lowering of interest rates in the larger economy, which has reduced insurers' investment income.

The committee found a variety of efforts on the part of insurers to use their information bases to identify high-risk areas and to encourage more effective or appropriate methods of managing the risks of obstetrical care. Some efforts have taken place in commercial insurance companies, but most have been initiated in physician- and hospital-sponsored organizations.

Several proposals have been advanced in the last decade to address the medical malpractice problem by altering the practices of medical malpractice insurers. The committee found that, although there has been some limited experience with these proposals in certain states, there is not yet enough experience or data to enable it to recommend any of these proposals for nationwide adoption.

The Tort System and Its Alternatives

In the course of its inquiry into the legal system the committee examined the role of the tort system in the medical professional liability problem, evaluated the data relating to the efficacy of tort reforms, and studied various proposed alternatives to the tort system. Although these are important issues in the medical malpractice debate, because of limited time and resources the committee did not examine the effectiveness of state licensing boards and peer review activities or the complex issues raised by expert medical testimony. Similarly, the committee did not attempt to investigate the effectiveness of various alternatives to the tort system that have been implemented in other nations, such as New Zealand and Sweden. The committee believed that these nations have health care delivery systems and legal systems that are quite different from those of the United States, making useful comparisons difficult in the absence of sustained study. Finally, the committee did not formally study the practices or evaluate the role of the plaintiffs' or defendants' bar in the obstetrical malpractice crisis. This is an enormously complex topic and one that the committee believed was outside the scope of this report.

The committee's overall conclusions from the data are that the traditional tort system is a slow and costly method of resolving obstetrical disputes and that it is contributing to the disruption of the delivery of obstetrical care in this nation. Moreover, the committee found that the threat of liability is having far-reaching and severe effects on access to and availability of obstetrical care, that the threat of liability is causing a variety of medically inadvisable procedures to be overused, and that both health care providers and patients have lost confidence in this method of resolving claims related to injuries occurring in the course of medical treatment.

Studies to date suggest that, although the tort reforms implemented since the mid-1970s have slowed the increase in claims frequency and magnitude in some states, they have not had a dramatic effect on the costs, either direct or indirect, of the tort litigation system for resolving obstetrical malpractice claims. It is the committee's conclusion that, although some tort reforms already in place have merit, they do not appear likely to stem the exodus of obstetrical providers from the profession or to solve the attendant problems caused by the current professional liability climate. Accordingly, the committee makes additional recommendations.

Although a number of alternatives to the civil justice system for resolving medical malpractice claims have been advanced in the past decade, the committee found a limited data base with which to measure the costs of these alternatives, the claims frequency under these regimes, or their effectiveness and fairness in resolving claims in the context of the U.S. health care delivery system.

THE COMMITTEE'S RECOMMENDATIONS

The committee has a modest number of recommendations to help lessen the recurrence of professional liability crises in the long run and to relieve some of the immediate problems stemming from professional liability concerns. The committee's goal in making these recommendations is to increase access to high-quality, affordable obstetrical care for all women, regardless of their ability to pay, where they live, or where the care is delivered. In the committee's view a doctor-patient relationship based on mutual trust is essential to high-quality medical care. It is difficult to formulate a series of precise recommendations in this regard, however, the committee urges individual providers, provider groups, patients, insurers, the legal profession, policymakers, and educators to join in supporting this objective.

Long-Term Recommendations

1. *States should consider alternatives to the tort system.* The committee recommends that states focus their future reform efforts on developing alternative methods of resolving medical malpractice claims. Although there has been little practical experience with alternatives to the tort system for resolving medical malpractice claims in the United States, the committee determined that, based on the theoretical literature available, three of them appear particularly promising. The committee recommends that states evaluate these three proposals for implementation on a limited basis: the no-fault designated compensable events scheme (including the variants enacted in Virginia and Florida providing no-fault compensation for certain neurologically impaired infants), the AMA-Specialty Society's fault-based administrative system, and legislation authorizing the use of private contracts to stipulate arrangements for resolving medical professional liability disputes between providers and patients.

2. *The federal government should support demonstration projects.* The committee believes that the primary responsibility for resolving the medical malpractice problem rests with the states, but it also believes that the federal government should stand ready to assist the states. To that end, it recommends that the federal government, through the Department of Health and Human Services (DHHS), fund pilot projects for various solutions and studies of proposed state legislation.

3. *A national data base on malpractice claims should be developed.* The federal government, through DHHS, should assist in the development of a national data base on medical malpractice claims to assist the states in their efforts to understand and solve the medical malpractice problem. The Health Care Quality Improvement Act of 1986 mandates a data bank for information related to licensing, sanctioning, and disciplining of health care providers. The committee approves of this legislation but believes that a more extensive data base is required to facilitate further study of the problem. It recommends that the national data base

include required disclosures by medical malpractice insurers regarding rates, payouts, settlements, and claims; by hospitals and hospital groups and by other providers and provider groups regarding claims; and by relevant state agencies.

4. *Systematic technology assessment is needed.* The committee joins other groups, such as the Health Care Financing Administration's Effectiveness Initiative, the National Center for Health Services Research's Health Care Technology Assessment Program on Outcomes Research, and the Institute of Medicine's Council on Health Care Technology, in recommending that sufficient primary data be generated to determine the safety, effectiveness, and other attributes of new technologies relevant to obstetrics and other fields of medicine. The committee's examination of electronic fetal monitoring and other practice changes in obstetrics has led it to conclude that systematic effort is required to establish the appropriateness, reliability, and effectiveness of new medical procedures before they are widely disseminated and become the accepted standard of care.

Short-Term Solutions

5. *States should address the access problems of the poor at once.* Although the committee believes that efforts to develop alternatives to the tort system hold the most promise, it also urges states to address immediately the disruptions and deterioration in maternity services for the poor that have been worsened by professional liability concerns. The committee recommends that the states and the federal government consider several short-term solutions simultaneously with their efforts to resolve the medical professional liability crisis generally. These appear as recommendations 6 through 8 below.

6. *Federal tort claims act coverage, or its equivalent, should be extended to certain obstetrical practitioners.* To lessen the immediate problems posed by professional liability issues in government-financed Community and Migrant Health Centers, Congress should authorize the extension of the personal immunities offered by the Federal Torts Claims Act, or equivalent coverage, to all practitioners of obstetrical care at these centers. Such an action would relieve practitioners of steep malpractice insurance and of personal liability, while providing plaintiffs a legal remedy.

7. *States should contribute to professional liability coverage for Medicaid providers.* As a temporary measure to ensure full access to obstetrical care for women whose care is financed partly by Medicaid, the committee recommends that states follow the examples of Missouri, Hawaii, and Montgomery County, Maryland, which have taken actions

to reduce the professional liability risk of providers of obstetrical services to poor women. The committee recommends that, until the obstetrical professional liability issue is fully resolved, states should implement programs that would either indemnify or subsidize the medical professional liability premiums of obstetrical providers who participate in Medicaid or otherwise provide care to low-income women.

8. *The National Health Service Corps should be expanded.* The committee recommends that the National Health Service Corps, whose resources have been severely restricted in recent years, be revived and expanded. Congress should reinstate general scholarships, expand the program of scholarships for students with exceptional financial need, and increase loan repayment options to increase the number of physicians in underserved areas.

2

Maternity Care in the United States

To understand the effects of medical professional liability on the delivery of obstetrical care in the United States, some background on maternity care is needed. Most American women receive their prenatal care in the office of a private physician, who also supervises their labor and performs their deliveries in a hospital. Payment for such care is usually through private insurance, often supplemented by savings. Large groups of women, however, especially poor and minority women, have different patterns of care that may make them particularly vulnerable to changes in the availability of obstetrical services. The committee devoted considerable time to evaluating the effects of professional liability issues on the delivery of care to these groups of women. The results of its efforts are set forth in Chapter 4. Here the committee presents the background necessary to an understanding of the implications of professional liability issues in obstetrics.

OBSTETRICAL PRACTITIONERS

Maternity services in the United States are rendered by three groups of providers: obstetrician-gynecologists, other physicians (primarily family physicians), and other practitioners, including certified nurse-midwives (CNMs) and, in some states, lay midwives. At all times during its deliberations, the committee considered the medical liability issue from the perspectives of each of these provider groups. Data from the Alan Guttmacher Institute reveal that low-income women are more likely to see physicians who are not obstetricians; women with higher incomes are more likely to see obstetricians and CNMs (AGI, 1987). According to the 1980 National Medical Care Utilization and Expenditures Study (NMCUES), 61.1 percent of first prenatal visits were with obstetrician-gynecologists, 26.0 percent were with other physicians, and 12.9 percent were with other practitioners (AGI, 1987).

Obstetrician-Gynecologists

According to the American Medical Association's Physician Master File, 31,364 physicians in the United States identified themselves as obstetrics-gynecology specialists in 1986 (AMA, 1987). The American College of Obstetricians and Gynecologists, the specialty society for this discipline, counts 27,219 obstetrician-gynecologists as active fellows, 6,587 as junior fellows (still in training), and 2,746 as life and founding life fellows (usually inactive practitioners) (ACOG, 1988).

Like other surgical specialists, most obstetrician-gynecologists work in metropolitan areas.[1] ACOG data show that 17 states, primarily larger states in the southern and western parts of the country, have areas with fewer than 10 obstetrician-gynecologists per 100,000 women age 15 to 44 in the population, 35 states have regions with fewer than 20 per 100,000, and 22 states have areas with no obstetrician-gynecologists at all (affecting close to 400,000 women age 15 to 44) (ACOG, 1988) (Table 2.1).

Family and General Practitioners

Prior to 1969, there was no separate specialty called "family practice." General practitioners were physicians who had completed medical school and one year of internship, and specialists were physicians who had completed the longer residency program in their specialty. Concern about increasing specialization and the declining number of primary care physicians led to the establishment of family practice as a recognized program of training and specialization.

By 1980, there were approximately 27,000 family physicians, 18,000 of whom were in office-based practice (AMA, 1987). By 1986, the number in office-based practice had grown by 70 percent, to more than 31,000

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[1] That is, areas with a center city (or twin cities) of 50,000 or more, together with surrounding, economically related jurisdictions, as defined by the U.S. Bureau of Census. Nonmetropolitan areas are those not defined as metropolitan. The terms "urban" and "rural" are used in a general sense in this report, not as the Census Bureau defines them.

TABLE 2.1 Active Nonfederal Physicians and Physician-to-Population Ratios for Obstetrician-Gynecologists and Family and General Practitioners, by State, 1985

State	Family and General Practitioners		Obstetrician-Gynecologists		Total Physicians	
	Number	Ratio[a]	Number	Ratio[a]	Number	Ratio[a]
Alabama	979	25	397	10	5,769	145
Alaska	173	35	37	7	658	132
Arizona	884	29	381	12	5,912	194
Arkansas	887	38	185	8	3,274	139
California	8,232	32	3,832	15	63,009	246
Colorado	969	30	376	12	6,373	201
Connecticut	556	18	563	18	8,900	282
Delaware	150	24	90	15	1,169	191
District of Columbia	170	27	245	39	3,547	570
Florida	3,093	28	1,402	13	22,295	203
Georgia	1,233	21	764	13	9,614	165
Hawaii	241	23	165	16	2,150	207
Idaho	335	33	73	7	1,202	120
Illinois	3,167	28	1,464	13	23,582	205
Indiana	1,855	34	433	8	8,002	146
Iowa	1,014	35	181	6	3,999	137
Kansas	859	35	210	9	4,001	164
Kentucky	1,071	29	348	9	5,640	151
Louisiana	1,022	23	616	14	7,936	178
Maine	408	35	109	9	1,966	170
Maryland	955	22	924	21	13,680	315
Massachusetts	991	17	835	14	18,079	312
Michigan	1,879	21	1,128	12	16,179	178
Minnesota	1,783	43	372	9	8,658	208
Mississippi	713	27	215	8	3,081	119
Missouri	994	20	581	12	9,244	185
Montana	257	31	63	8	1,148	139
Nebraska	608	38	123	8	2,539	158
Nevada	245	27	102	11	1,471	162
New Hampshire	246	25	98	10	1,813	186
New Jersey	1,464	19	1,102	15	17,112	228
New Mexico	366	26	162	11	2,379	167
New York	3,519	20	3,056	17	52,971	299
North Carolina	1,627	26	711	12	10,489	170
North Dakota	288	42	56	8	1,071	156
Ohio	2,776	26	1,243	12	20,005	186
Oklahoma	872	26	296	9	4,563	138
Oregon	808	30	308	12	5,201	194
Pennsylvania	3,407	29	1,433	12	25,903	218
Rhode Island	167	17	130	14	2,206	229
South Carolina	1,078	33	335	10	4,912	149
South Dakota	275	39	44	6	927	131
Tennessee	1,128	24	561	12	8,492	180

TABLE 2.1 Active Nonfederal Physicians and Physician-to-Population Ratios for Obstetrician-Gynecologists and Family and General Practitioners, by State, 1985 (*continued*)

	Family and General Practitioners		Obstetrician-Gynecologists		Total Physicians	
State	Number	Ratio[a]	Number	Ratio[a]	Number	Ratio[a]
Texas	4,119	26	1,825	11	26,683	167
Utah	414	25	192	12	2,844	172
Vermont	163	31	66	12	1,276	241
Virginia	1,601	28	723	13	11,075	197
Washington	1,635	38	458	11	8,773	202
West Virginia	549	28	188	10	3,122	160
Wisconsin	1,543	32	432	9	8,356	175
Wyoming	180	35	43	8	655	128
Total	63,948	27	29,685	13	463,905	205

[a] Physicians per 100,000 women, age 15 to 44 in the population.

SOURCE: Bureau of Health Professions, U.S. Department of Health and Human Services. 1987. Area Resource File System: U.S. and State Summaries of Selected Geographic Resources and Trends in Resources. Hyattsville, Md. This edition used 1985 AMA data on physicians and 1984 census data.

(AMA, 1987). During the same period, the number of general practitioners fell, from approximately 52,000 to 30,000, as older physicians retired and younger ones entered family practice or specialty medicine (AMA, 1987). As a result, the number of family and general practitioners in office-based practice in 1986 was nearly the same as in 1970—54,000 physicians—about 30 percent of whom were in nonmetropolitan areas. The AMA estimates that approximately 68,000 physicians designate their specialty as family practice or general practice, but this number includes many who do not engage in office-based practice or who are not in practice at all (AMA, 1987).

Although the number of specialists practicing in rural areas has grown in recent years, general and family practitioners continue to be the principal providers of primary and obstetrical care in these areas. Fifty-three percent of all visits to physicians in nonmetropolitan areas were to family physicians, compared with 10 percent to internists and 7 percent to obstetrician-gynecologists (National Ambulatory Medical Care Survey, 1987). If one considers only visits by adults, the proportion for family physicians rises to 70 percent (National Ambulatory Medical Care Survey, 1987).

Not all family physicians practice obstetrics, however. The American Academy of Family Physicians (AAFP) reported that 71 percent of its practicing members have offered obstetrical care at some time during their careers (AAFP, 1986) and that 35 percent do so currently (AAFP, 1987). Most of those who accepted obstetrical patients had served in residency programs (73 percent) and were board certified in family practice (83 percent). Of these, 33 percent did not perform complicated deliveries or cesarean sections; 43 percent performed complicated deliveries only; and 23 percent performed both (AAFP, 1987). Those performing complicated deliveries or cesarean sections or both were more likely to have completed residencies and to be board certified.

The participation of family and general practitioners in obstetrics varies greatly by region of the country, urban or rural location, and physician age. A survey based on 1977–1978 data found that family and general practitioners in the Northeast saw very few obstetrical patients (only 0.4 percent of diagnoses were prenatal or postpartum care), whereas those in the north central states saw relatively many (4.3 percent of diagnoses) (Rosenblatt et al., 1982). Those in rural areas were twice as likely to see obstetrical patients as those in urban areas (5.2 percent of diagnoses versus 2.3 percent) (Rosenblatt et al., 1982). A study of Michigan family practice residents found that 55 percent of third-year residents planned to practice obstetrics on graduation; plans to practice in rural communities were positively correlated with the decision to include obstetrics, whereas plans to practice in suburban areas were negatively correlated (Smith and Howard, 1987).

Because the data make it clear that family physicians are critical to the provision of obstetrical services in rural areas, the committee was interested in determining precisely how extensive their role in these areas is. Accordingly, it commissioned research on this question as part of its fact-finding. The results were striking and are reported at length in Chapter 3. *It should be noted at the outset that, according to estimates prepared for the committee, two-thirds of all obstetrical providers of private obstetrical care in rural areas are family physicians.* During the early 1980s—prior to the dramatic increase in professional liability insurance expenses—there were an estimated 16,700 physicians providing obstetrical care in nonmetropolitan areas, two-thirds of whom were family and general practitioners. By contrast, there were only 5,400 obstetrician-gynecologists practicing in nonmetropolitan areas (J. Chapin, director of research, ACOG, personal communication, 1988).

Certified Nurse-Midwives

Certified nurse-midwives are registered nurses with additional training in midwifery. They are certified by the American College of Nurse-Midwives (ACNM), which states that "nurse-midwifery practice is the independent management of essentially normal newborns and women antepartally, intrapartally and postpartally and/or gynecologically. This occurs within a health care system which provides for medical consultation, collaborative management and referral" (ACNM, 1984). The ACNM believes that there are approximately 3,500 CNMs in the United States but that only 2,000 to 2,500 practice. ACNM members number 2,100, and between 200 and 250 nurse-midwives are certified each year. The number of persons entering nurse-midwifery training has remained stable over the past few years; however, schools are experiencing a decline in the number of applicants (ACNM, 1988).

A 1982 ACNM survey found that CNMs, on average, attend 75 births per year (ACNM, 1984). The heaviest concentrations of CNM deliveries were in the Northeast, Southeast, and West (Klerman and Scholle, 1988). According to a 1985 ACNM statement, 75 percent of CNM-attended births occur in hospitals and 15 percent in freestanding birth centers (ACNM, 1988).

The 1982 ACNM survey found that approximately 59 percent of CNMs were employed by organized facilities, including hospitals (36 percent), public health agencies (9 percent), health maintenance organizations (HMOs) (6 percent), the military (6 percent), and university health services (2 percent). The remainder were in private practices operated by either nurse-midwives or physicians (41 percent). Three-quarters of the CNMs were salaried employees; others received income through fee-for-service payments and direct third-party payment (26 percent). The mean 1981 income of CNMs ranged from $18,544 in the Southwest to $25,245 in the Midwest (ACNM, 1984).

The scope of services provided by CNMs varied with their employers. The CNMs working in hospitals and HMOs and those in private practice or maternity services were more likely to work in the largest metropolitan areas. Those working in hospitals, maternity services, and private nurse-midwifery practices were most likely to provide prenatal, labor, and delivery care. Those in practices run by CNMs were also more likely to supervise well-baby care. Those working in public health agencies were less likely to do labor, delivery, and postpartum examinations (ACNM, 1984).

Comprehensive data regarding the characteristics of women whose care is provided by nurse-midwives are lacking. Although the 1982 survey found that CNM patients were older, of lower parity, and better educated than all childbearing women, a 1985 survey of factors affecting the success of nurse-midwifery practice found that more than one-third of CNMs worked in practices in which most of the clients were poor (Rooks and Haas, 1986).

Other Practitioners

The Nurses' Association of the American College of Obstetricians and Gynecologists (NAACOG) is comprised of more than 20,700 nurses, representing approximately 20 percent of those employed in the specialty (NAACOG, 1987). Two-thirds of NAACOG members work in a hospital inpatient setting, and labor and delivery is the clinical area in which they practice most frequently. In 1978 the NAACOG Certification Corporation began certifying nurses for special knowledge in specified areas of obstetrical, gynecological, and neonatal nursing. According to a 1987 General Accounting Office study, less than 2 percent of all medical malpractice claims closed in 1984 were against nurses (GAO, 1987).

FACILITIES OFFERING PRENATAL CARE

Most women receive prenatal care in private physicians' offices, either from obstetrician-gynecologists or from family or general practitioners. Approximately 20 percent, however, receive care from a public provider, such as the outpatient department of a public hospital, a Community Health Center, or a health department (Klerman and Scholle, 1988). Low-income, black or Hispanic, teenage, and unmarried women are more likely to use these facilities (Table 2.2). Hospital clinics are the most commonly used clinics, reported by 9 percent of women as the source of obstetrical care for their first prenatal visit and by 13 percent of women as the source of prenatal care provided by other physicians (AGI, 1987). Family planning clinics served 5 percent; health department clinics, 4 percent; Community Health Centers, 3 percent; and military clinics, 3 percent. Forty-six percent of low-income women relied on these sources of care, compared with 17 percent of higher income women. Public facilities provide services not only to the uninsured and those ineligible for Medicaid but also to Medicaid recipients who have difficulty finding private physicians who will accept them.

Hospitals

Despite the large contribution of hospital clinics to prenatal care, especially for poor women, very little is known about the care provided in this setting. There is no source of national data on hospital clinic utilization that separates obstetrics or gynecology visits from other visits.

Local and State Health Departments

In 1984 the Public Health Foundation reported that 40 state health agencies provided prenatal clinical services to over 361,300 women (Public Health Foundation, 1987). A 1986 Children's Defense Fund survey of officials representing the 51 agencies (50 states plus the

TABLE **2.2** Source of Care for the First Prenatal Visit, 1982

	Source of Care (%)		
Characteristics	Clinic[a]	Private[b]	Others[c]
Poor	38.7	53.8	5.7
Nonpoor	12.4	82.8	4.7
Hispanic	35.7	54.9	9.4
Black, non-Hispanic	44.9	48.0	7.0
White, non-Hispanic	14.1	81.0	4.9
<20 years	41.5	55.5	3.0
20–29	24.4	69.6	5.9
30+	10.7	83.6	5.8
Married	13.4	81.1	5.6
Unmarried	47.2	46.5	6.3
Total	21.0	73.3	5.7

[a] Includes Community Health Centers, health department clinic, family planning clinic, hospital clinic, abortion clinic, student health services clinic, and other clinics.

[b] Includes private doctor or private group practice.

[c] Includes military clinic, not ascertained, and no visit; percentages may be unreliable because of the small number of cases.

NOTE: Totals may not add to 100 percent due to rounding.

SOURCE: Alan Guttmacher Institute. 1987. The Financing of Maternity Care in the United States. New York. Table 17.

District of Columbia) receiving maternal and child health funding under Title V of the Social Security Act found that 48 offered some prenatal care for indigent women, usually through clinics operated by local health departments (Rosenbaum et al., 1988).

Eligibility requirements and distribution of services varied widely from state to state. Eleven states based eligibility on specific conditions, offering services to high-risk, unmarried, teenage, or unemployed women. Thirty-six states used uniform financial eligibility criteria, usually meaning that services were provided without charge to certain groups, such as those with family incomes below the federal poverty level. Services were often available to other women on the basis of a sliding fee scale.

Women who receive prenatal care at clinics subsidized by state Title V agencies are more likely to have incomes below the federal poverty level, to be young, and to be uninsured. An Alan Guttmacher Institute survey of directors of 25 state Title V agencies found that 64 percent of prenatal patients had incomes below the federal poverty level, 34 percent between 100 and 200 percent of that level, and 2 percent at approximately 200 percent of the poverty level. Sixty-four percent were uninsured, 27 percent received Medicaid, and 9 percent were privately insured. Sixty-two percent were between 20 and 34 years old, 34 percent were teenagers, and 4 percent were 35 years and older (AGI, 1987).

Community and Migrant Health Centers

Community Health Centers and Migrant Health Centers are federally funded institutions providing primary health care services, including perinatal services, to medically underserved and disadvantaged populations. Located in areas designated by the U.S. Public Health Service as medically underserved, they provide a broad range of primary and specialized medical and support services to individuals and families who otherwise would not have access to such care. In 1987 there were 567 such centers; 58 percent of them were located in cities.

Standards for the centers are established by the Department of Health and Human Services and require that the centers either provide or arrange for prenatal care and delivery services and that they develop a referral relationship with at least one hospital. In a 1987 survey of health centers 85 percent of the respondents were found to either provide or pay for prenatal care for an estimated 213,000 women (AGI, 1987). Almost two-thirds (64 percent) of these women had incomes below the federal poverty level, and another quarter (24 percent) had incomes between 100 and 200 percent of that level.

Approximately 300 health centers have on their staffs obstetrical specialists, many of them National Health Service Corps (NHSC) physicians repaying medical education scholarships and loans by working in medically underserved areas. As of June 1988, almost 70 percent of the 1,297 NHSC physicians were health center employees, including 419 family physicians, 104 obstetrician-gynecologists, and 50 general practitioners. More than half of NHSC placements are in rural areas. The peak of NHSC placements occurred in 1985–1986, and the last of these scholarships has been awarded. In 1989 approximately 100 placements will be made. The NHSC is attempting to keep physicians in underserved areas after their obligation is met, but the retention rate is currently only between 30 and 40 percent. In addition, the corp is recruiting nonobligated physicians and offering a loan repayment program.

There are grossly insufficient numbers of NHSC obstetrical specialists to meet the needs of the centers, and by 1992 virtually all these specialists are likely to be gone. For this reason, many centers must either provide prenatal care through staff members who are not obstetrician-gynecologists or contract with obstetricians in the community to furnish the care their patients need.

Health centers' budgets are quite restricted. In fiscal year 1987 Congress appropriated $400 million to health centers' programs, yet centers served approximately 5.5 million patients, two-thirds of whom were children and women of childbearing age. Estimates of the number of prenatal patients served by health centers range from 120,000 to more than 200,000 a year. It is estimated that approximately 62,000 babies are delivered in health centers annually. Of those women who received prenatal care at health centers but whose babies were not delivered there, most were referred to an obstetrician early in the course of their pregnancy and were followed jointly by the center and the obstetrician. This arrangement is frequently necessary, because many centers do not have on-site obstetricians. Births to center patients made up 6.5 percent of all poor and near-poor births (approxiamtely 1.85 million) in the United States in 1987. A cost-based analysis of perinatal services furnished by health centers in 1986 and conducted by the Public Health Service has estimated that more than $85 million of the program funding for Community and Migrant Health Centers was devoted to such care.

Because the committee was persuaded that Community and Migrant Health Centers are an important source of obstetrical care for low-income women, it commissioned a study on the effects of medical professional liability on the delivery of obstetrical care in Community and Migrant Health Centers. The results are published in the companion volume of this report, and the committee's discussion of them is in Chapter 4.

LABOR AND DELIVERY SERVICES

Although the number of obstetrical beds in all hospitals increased by approximately 4 percent between 1980 and 1986, the number of such beds in hospitals operated by state and local governments decreased (AHA, 1987) (Table 2.3). The majority of all hospital beds, as well as obstetrical beds, are found in nongovernment, not-for-profit hospitals, and their number has increased slightly. The number of obstetrical beds in investor-owned (for-profit) hospitals, however, increased 40 percent during this period. More births are occurring in hospitals with more than 1,500 births per year and fewer in hospitals with less than 500 births per year (ACOG, 1986).

The decrease in public hospital beds is significant because public hospitals serve proportionately more poor patients: approximately 30 percent of all deliveries in government hospitals are paid for by Medicaid, compared with 18 percent in nonprofit, 17 percent in investor-owned, and 16 percent in church-affiliated hospitals (AGI, 1987). Government hospitals also perform more no-payment deliveries. Any decrease in obstetrical beds in government hospitals may affect poor women disproportionately.

TABLE 2.3 Obstetrical Facilities in Community Hospitals

	Obstetric Hospitals		Obstetric Units		
Sponsorship	Number	Beds	Number	Beds	Overall Change in Beds (%)
State and local governments					
1980	0	0	1,034	13,414	
1986	0	0	964	12,365	
					− 7.82
Nongovernment, not-for-profit					
1980	9	406	2,260	40,837	
1986	5	262	2,315	42,671	
					+ 4.10
Investor-owned (for-profit)					
1980	4	143	214	2,847	
1986	6	305	299	4,570	
					+63.04
Total community hospitals					
1980	13	549	3,508	57,098	
1986	11	567	3,578	59,606	
					+ 4.38

SOURCE: American Hospital Association. 1987. Hospital Statistics. Chicago.

FINANCING OF MATERNITY CARE

The average bill for having a baby in the United States in 1986 (including physician services and hospital costs) was $4,300; it was approximately $2,900 even if the pregnancy was uncomplicated, the delivery normal, and the infant healthy. The average cost was approximately 40 percent higher in urban areas (where approximately 75 percent of all U.S. couples live) than in rural areas. The bill can be much higher when there are complications. Charges for a cesarean birth averaged $4,860 when the newborn had no health problems, and they averaged $6,250 when complications were present. A premature birth with major complications averaged $12,000. In 1985 approximately $16 billion was spent in the United States on maternity care. Of this, an estimated $4.7 billion was spent for physician care and outpatient laboratory procedures and $11.3 billion for hospital charges ($6.3 billion for care of the mother, $5.0 billion for care of the newborn) (AGI, 1987).

Maternity care may be paid for out of pocket, by private insurance, or by Medicaid; or it may be received without charge because there was no charge or because the charge was not paid. Seventy-three percent (41 million) of the 56 million U.S. women of reproductive age have some form of private health coverage, but approximately 9 percent of these policies do not cover maternity care. Others have policies with gaps or loopholes in coverage, including waiting periods before coverage begins (AGI, 1987). According to the 1980 NMCUES—the only source of information on payments for prenatal care—approximately 44 percent of prenatal charges were paid by private insurance, 35 percent out of pocket, and 17 percent by Medicaid and other government programs (AGI, 1987). Women whose care was paid for by Medicaid or other government funds were more likely to be less than 20 years old, black or Hispanic, unmarried, and without a high school diploma (Klerman and Scholle, 1988).

In a 1986 survey by the Children's Defense Fund only 23 states reported programs that finance inpatient maternity programs (Rosenbaum et al., 1988). Of these, 16 limited services to women in special programs or to women identified as high-risk prior to labor and delivery.

NEED FOR OBSTETRICAL CARE

In analyzing the effects of professional liability concerns on the supply of obstetrical providers, the committee thought it important to examine the "demand" side of the obstetrical equation; that is, how much obstetrical care is needed under the current system, and how much obstetrical care would be needed if the current system were not underfunded. The committee concluded that forecasting the need for obstetrical services is difficult because of the number of variables involved. However, two notable observations emerged: (1) there is mounting evidence of existing shortages of obstetrical care for certain groups of women and for women living in certain geographic areas; and (2) despite the fact that the birth rate in the United States is not expected to increase dramatically in the next decade, there is good reason to believe that the need for obstetrical services in the United States will increase. The evidence that professional liability concerns are driving physicians and other obstetrical providers from practice and raising barriers to access, presented in Chapters 3 and 4 of this report, must be evaluated in light of these observations.

Evidence of Existing Shortages of Obstetrical Services

In evaluating the effects of medical professional liability on access to obstetrical care, the committee was mindful of the larger problem of constrained access to health services for low-income and minority women generally in the United States and of the fact that the American maternity system is seriously underfinanced (IOM, 1988). Seventeen percent of all women have no health insurance coverage, and others have inadequate coverage (AGI, 1987). Below, the committee summarizes some of the disturbing trends that point to shortages of obstetrical services for certain groups of women. It is important to bear in mind that the effects of professional liability concerns are being experienced in a system that is already falling far short of meeting the public health goals of this nation.

To be sure, the problems associated with the underfinancing of the maternity system in the United States make it difficult to assess the independent effect of professional liability concerns on the delivery of obstetrical care. Moreover, the committee recognizes that, unless these critical finance issues are also addressed, solutions to the problems wrought by professional liability concerns on obstetrics may not be fully realized. Conversely, the committee notes that resolving the professional liability problems will not by itself address all the unmet needs for obstetrical services. However, the committee does believe that professional liability problems are exacerbating the problems faced by the U.S. maternity system.

Insufficient Prenatal Care

The data available to the committee make it clear that, although the United States has made many strides in improving maternal and child health in the last two decades, access to prenatal care is far less than optimal, and the incidence of low birthweight and of certain preventable complications of pregnancy and delivery remains too high (IOM, 1988). In 1985 approximately one-fourth of all infants in the United States were born to women who did not begin prenatal care in the first three months of pregnancy; almost one-third were born to women who did not obtain the amount of care currently recommended by the ACOG (1985). More than 5 percent were born to women who began care only in the third trimester of pregnancy or who had no care at all.

For certain groups, these percentages were higher: for example, only 47 percent of black teenagers began care in the first trimester of pregnancy, and 14 percent obtained no care or care only in the third trimester (National Center for Health Statistics, 1987). Similar patterns were reflected in a study by the Alan Guttmacher Institute (1987), which found that 34 percent of mothers obtained less than adequate prenatal care. Again, certain groups exhibited even higher percentages of insufficient prenatal care. Fifty-one percent of black women and 47 percent of Hispanic women obtained less than adequate care. Women younger than 20 years were more than twice as likely to have received less than adequate care (55.7 percent), as were women aged 35 years and older (26.4 percent). Women who were unmarried, who had relatively little education, or who were poor also were more likely to have obtained insufficient prenatal care (AGI, 1987) (Figure 2.1). These trends are particularly disturbing in light of the broad consensus that prenatal care is an effective intervention that is clearly associated with improved outcomes of pregnancy.

Arrested Decline in Infant Mortality

The committee noted with alarm that in 1985, following several years of slowing improvements in infant health, the national rate of decline in infant mortality had been arrested. This lack of improvement masked the first nationwide *increase* in black and nonwhite neonatal mortality in 20 years, from 11.8 to 12.1 deaths per 1,000 live births.

In 1978 the Surgeon General of the United States established a set of objectives for infant health to be met by 1990 (USDHHS, 1986). He determined that the national infant mortality rate (deaths of children younger than 1 year) should be reduced to no more than 9 deaths per 1,000 live births, with no county and no racial or ethnic subgroup having a rate in excess of 12 deaths per 1,000 live births. Recent calculations by the Children's Defense Fund suggest that, although the national goal will be met, the goal for blacks and other nonwhite ethnic subgroups will not (Hughes et al., 1988). In his *Midcourse Review,* the Surgeon General acknowledged this and specifically mentioned professional liability concerns as a contributing factor:

> In addition, two recent developments, the escalating costs of malpractice insurance and changes in methods of financing health care for the medically indigent, must be monitored for their potential to affect efforts to reduce infant mortality. In a 1983 nationwide survey by the American College of Obstetricians and Gynecologists, 17.6 percent of the obstetricians reported that they had decreased their level of high-risk obstetrical care, and another 9.1 percent reported they had ceased to practice obstetrics. . . . Given these and other barriers to progress, it is clear that further reduction of infant mortality rates will require a concerted national, state, and local effort (USDHHS, 1986, p. 37).

Inability to Pay for Care

The Alan Guttmacher Institute found that more than 25 percent of women between the ages of 16 and 24, who account for 40 percent of all births, have no private health care coverage (AGI, 1987). Medicaid covers only 43 percent of these women with family incomes below $5,000 and 30 percent of those with incomes between $5,000 and $10,000. Trends suggest that the absence of adequate insurance coverage may be complicated by a decline in charity care.

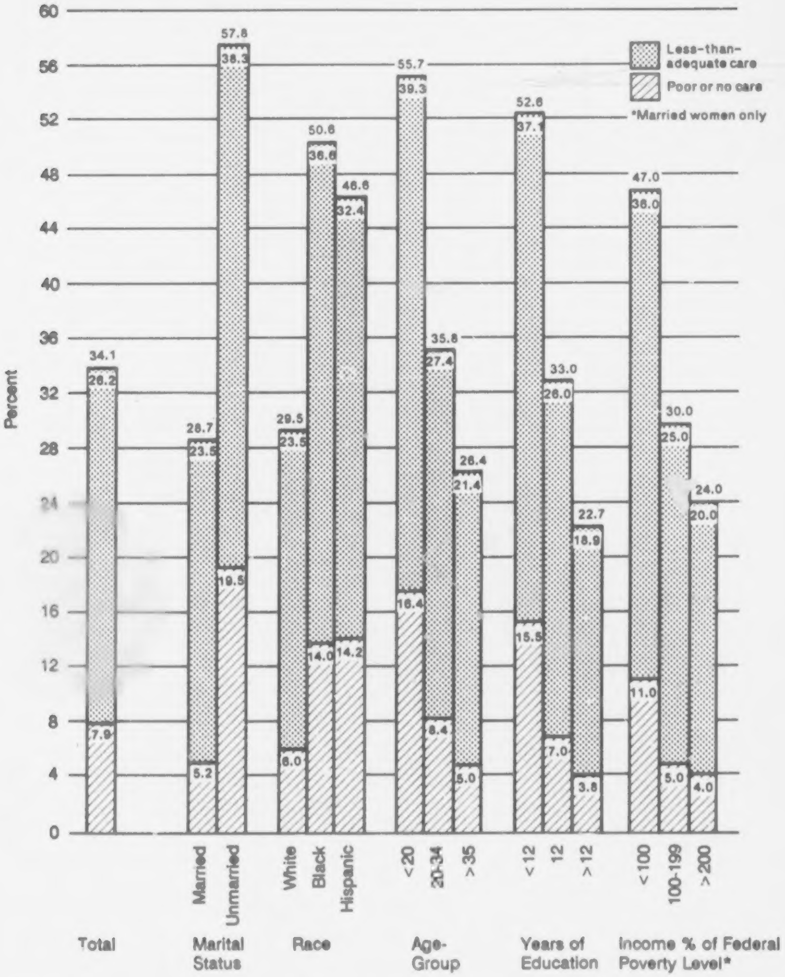

FIGURE 2.1 Percentage of women who had obtained insufficient prenatal care, by selected characteristics, 1980. Source : Alan Guttmacher Institute. 1987. The Financing of Maternity Care in the United States. New York.

The disturbing phenomenon of "dumping" women in labor was also brought to the attention of the committee. In 1986 the Children's Defense Fund asked state Title V officials if they knew of people being denied services or turned away from hospitals because of inability to pay. Fifteen state agencies reported that hospitals were denying admission to women about to deliver, and another 13 reported that hospitals were denying admission to women not yet in "active" labor. The Children's Defense Fund quoted officials in two states as saying: "[Uninsured] pregnant women sit on the steps of the hospital when they go into labor." In addition, 23 agencies reported that one or more hospitals in the state required preadmission cash deposits from pregnant women; only 4 agencies said no deposits were required. Where preadmission deposits are required, uninsured and indigent women may avoid registering early or may wait until they are in advanced labor to seek care (Rosenbaum et al., 1988).

Physician Shortage in Rural Areas

The 1970s saw a major upsurge in physician availability in rural areas. Growth was particularly prevalent among specialists, who increased to almost two-thirds of all physicians in nonmetropolitan office-based practice. The experience of the 1980s indicates that this growth was a short-lived phenomenon fueled principally by the general rise in physician supply. Although the percentage of fourth-year medical students selecting family practice has not varied much in the 1980s (see Table 3.1, Chapter 3), fewer physicians have entered medical practice, and thus growth rates in both metropolitan and nonmetropolitan areas have declined (AMA, 1987). The most recent data suggest that, as a result, nonmetropolitan areas may be losing again in the competition for physicians. Between 1983 and 1986, the absolute number of physicians in nonmetropolitan, office-based practice declined by 2 percent (AMA, 1987). *Between 1985 and 1986 alone, nonmetropolitan areas lost more than 4,000 physicians, whereas the number of physicians in metropolitan areas remained stable.* In that one year the number of specialists in nonmetropolitan areas declined by 10 percent; family and general practitioners fell by almost 6 percent (Figure 2.2).

A 1986 Robert Wood Johnson Foundation survey reported that residents of metropolitan and nonmetropolitan areas experienced approximately equal access to health care but that larger proportions of rural Americans are in poor health (Robert Wood Johnson Foundation, 1987). This national finding, which did not specifically examine obstetrical care, must be considered with other data which suggest that there is considerable variation in access from region to region and specialty to

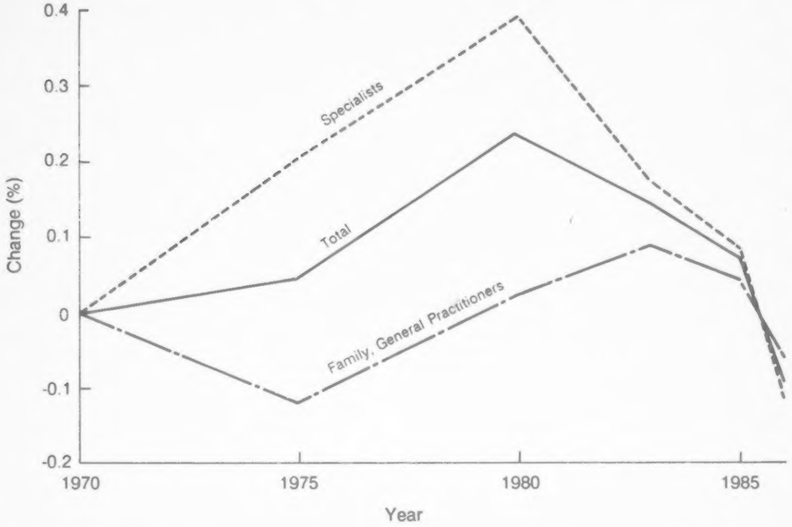

FIGURE 2.2 Physicians in office practice, nonmetropolitan areas, 1970–1986. Source: Lewis-Idema, D. 1988. Professional liability issues affecting family practitioners and delivery of obstetrical services in rural areas. Paper prepared for the Institute of Medicine, Washington, D.C.

specialty, however. In 1986 the AMA reported that 126 U.S. counties in 25 states had *no practicing physician* (AMA, 1987); these counties had 466,800 residents (0.2 percent of the U.S. population). All were rural and all had very low population density, an average of 4 persons per square mile; the most densely populated county among these had 60 persons per square mile.

The committee's findings relating to the availability of obstetrical providers in rural areas are discussed in detail in Chapter 3. The implications of the data presented there must be considered against this background of emerging shortages in rural areas.

Projected Increase in Need for Obstetrical Services

Determining the impact of liability issues on maternity care would be easier if there were accepted standards for the number of providers needed to care for pregnant women and projections of the number actually expected to be available. If such standards existed, present and future deviations could be examined and their relationship to the "malpractice crisis" at least surmised.

Several attempts have been made to project manpower needs in medicine, although very few have been specialty specific. The 1980 report of the Graduate Medical Education National Advisory Committee (GMENAC) is the best known effort in this regard (GMENAC, 1981). GMENAC projected that this country would have an excess of 70,000 physicians by 1990, including over 10,000 more obstetrician-gynecologists than would be needed. GMENAC procedures for modeling physician requirements and supply have received harsh criticism from organized medicine, particularly the ACOG, primarily because of their dependence on expert opinions and imperfect data sources. The Bureau of Health Professions (BHP) in the Department of Health and Human Services has used a "demand" model based on health services utilization data and economic and demographic trends to estimate the number of physicians needed (BHP, 1982). These data, which were originally not disaggregated by specialty, do not take into account the chronic shortages of care for low-income women. The committee concluded that neither the GMENAC nor the BHP projections offered a reliable benchmark for evaluating the current situation in obstetrics.

Although it is impossible to project overall need for obstetrical services with any certainty, the committee believes that available data suggest an increase in need in the near future, for three reasons: a rise in the number of births among women who may need additional prenatal visits or prenatal and delivery care from specialists, an increase in the mean number of prenatal visits per pregnant woman, and a continuation of the trend toward more complex perinatal procedures.

The birthrate has risen slowly but steadily since the mid-1970s. Preliminary data indicate that approximately 3.83 million infants were born in 1987, a 2 percent increase over 1986 (Klerman and Scholle, 1988). This increase over the last decade is related to the increase in the number of women of childbearing age and the increasing tendency of women in their twenties and thirties to delay birth. The birthrate to women aged 30 years and older is expected to increase from 25 percent of live births in 1985 to 30 percent in 1995 (AHA, 1987). However, the Census Bureau projects that the birthrate will peak by the late 1980s and then decline through the 1990s as the female population of childbearing age declines (Bureau of the Census, 1984).

The birthrate among women at higher than normal risk of having a complicated pregnancy or delivery—namely older, unmarried, and minority women—is rising and will continue to rise. Seven percent of births were to women age 35 years and older in 1986, compared with 4.6 percent in 1980; 23.4 percent of births were to unmarried women in 1986, compared to 17.8 percent in 1980; 20.9 percent of births were to nonwhite women in 1985, compared with 19.7 percent in 1980 (AGI,

TABLE 2.4 Births to Minority, Unmarried, and Older Women, 1970 and 1980–1986

	Women (% of U.S. Population)		
Year	Minority	Unmarried	Aged 35 and Over
1986	20.9	23.4	7.0
1985	20.5	22.0	6.5
1984	20.3	21.0	6.1
1983	20.2	20.3	5.7
1982	20.1	19.4	5.3
1981	19.9	18.9	4.7
1980	19.7	17.8	4.6
1970	17.1	10.7	6.3

SOURCES: Alan Guttmacher Institute. 1987. The Financing of Maternity Care in the United States. New York. Table 1; National Center for Health Statistics. 1988. Advance report of final natality statistics, 1986. Monthly Vital Statistics Rep., Vol. 37, No. 3 (Supp.) Hyattsville, Md.

1987) (see Table 2.4). Minority births are expected to constitute 22 percent of all births by the turn of the century (AHA, 1987). This increase among women who are likely to need additional prenatal visits or care from specialists, many of whom are poor and who are already underserved, should increase the need for maternity services.

The discrepancy between the accepted standard of prenatal care and the actual receipt of such care in the United States has been well documented, as noted above. If the multiple campaigns and outreach efforts to increase the number of women who receive adequate prenatal care are successful, the need for services should increase.

Finally, the range and number of diagnostic procedures routinely used in obstetrical services continue to increase. These currently include ultrasonography, amniocentesis, chorionic villi sampling, stress testing, electronic fetal monitoring, and cesarean sections. The increased tendency to test prenatally, the rise in "defensive" procedures discussed in Chapter 5, and widespread consumer acceptance of high-technology obstetrics are likely to contribute to an increase in the need for obstetrical services.

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3

The Effects of Medical Professional Liability on the Availability of Obstetrical Providers

From the outset, the committee was disturbed by reports of obstetricians, family physicians, and nurse-midwives abandoning obstetrical practice because of the expense of professional liability insurance or the problems associated with medical liability. The committee agreed to study these reports and to assess the implications of these data for access to obstetrical care. To this end, it consulted extensively with experts in the fields and commissioned several studies to determine the effects of insurance costs and liability concerns on the practice patterns of the three kinds of obstetrical providers covered in this report.

OBSTETRICIAN-GYNECOLOGISTS

The average cost of professional liability insurance for an obstetrician-gynecologist was $37,015 in 1987. Fifty-seven percent of obstetrician-gynecologists reported professional liability expenses of $25,000 or more in 1987, and annual premiums exceeded $100,000 in some large cities (ACOG, 1988). The committee explores these costs fully in Chapter 6.

Perhaps a better measure of the daily burden of professional liability concerns is the number of obstetricians who have been sued. Seventy percent of obstetricians surveyed by the American College of Obstetricians and Gynecologists (ACOG) in 1987 reported that they had been sued at some time in their careers, ranging from 62 percent in the Southeast (excluding Florida) to 80 percent in New York (ACOG, 1988).

With these data in mind, the committee sought to determine the effect these costs were having on the supply of obstetrician-gynecologists. Are obstetrician-gynecologists eliminating obstetrical practice? Are they limiting certain types of practice or procedures? Are fewer medical students choosing to become obstetrician-gynecologists? The committee's discussion of these issues is set forth below.

Careers in Obstetrics

The committee first sought to determine if the cost of malpractice premiums in obstetrics or the general medical-legal climate was deterring medical students from selecting obstetrics as a field of practice. Data from the National Resident Matching Program (NRMP) and the Association of American Medical Colleges (AAMC) indicate that between 1981 and 1987 there have been only relatively minor changes in the number of fourth-year medical students selecting any specialty, except general internal medicine. The percentage of fourth-year medical students selecting obstetrical residencies has remained fairly constant over the last six years; however, the absolute number of obstetrical residents has decreased slightly (NRMP, 1987; AAMC, 1981–1987).

Data from the AAMC show that between 1981 and 1987 the percentage of graduating seniors selecting obstetrics has varied between 6.7 and 8.8 percent (AAMC, 1981–1987) (see Table 3.1). According to the NRMP, the percentage of seniors matched to obstetrical residencies between 1978 and 1987 has varied only between 5.6 and 6.5 percent (NRMP, 1987). The percentage of obstetrical positions filled by U.S. graduates has stayed close to 80 percent throughout this period, again well above the national average of between 70 and 73 percent. The percentage of positions filled by non-U.S. graduates stayed below 4 percent between 1978 and 1987, compared with the national average of 5 percent. Between 1985 and 1987, the figure was closer to 2 percent.

Concerns About Professional Liability

The question of whether professional liability concerns are causing obstetrician-gynecologists to forego obstetrical practice is much more difficult to answer. Although the available data are not nearly as good as the committee had hoped, the committee was able to discern certain important trends. Information comes primarily from surveys done by state and national medical associations. In the course of its deliberations

TABLE 3.1 Specialties Chosen by Graduating Seniors, 1981–1987

	Graduating Seniors (%)						
Specialty	1981	1982	1983	1984	1985	1986	1987
Allergy and immunology	0.2	0.1	0.2	0.2	0.2	0.3	0.2
Anesthesiology and critical care	4.2	5.0	5.5	6.2	6.6	6.0	6.6
Dermatology	1.2	0.9	1.2	1.4	1.6	1.8	1.7
Emergency medicine	2.6	2.4	2.7	3.0	3.0	3.5	3.7
Family practice	17.3	18.2	17.7	17.0	15.9	17.0	18.3
Internal medicine	18.6	17.0	16.4	14.3	14.9	13.3	12.1
General	12.7	13.9	12.7	10.4	10.3	8.3	6.8
Subspecialties	5.9	3.1	3.7	3.9	4.6	5.0	5.3
Neurology and child neurology	1.4	1.9	1.6	2.1	2.3	2.6	2.0
Nuclear medicine	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Obstetrics-gynecology and subspecialties	7.9	8.4	7.9	8.8	7.2	7.2	6.7
Ophthalmology	3.8	3.9	3.8	3.9	4.0	4.2	4.1
Pathology	2.5	2.7	3.1	2.4	2.1	2.1	2.4
General pediatrics and subspecialties	8.8	7.5	7.3	7.5	6.3	6.7	6.7
Physical medicine and rehabilitation	0.6	0.6	0.9	0.9	1.3	1.6	1.8
Preventive medicine	0.2	0.2	0.1	0.2	0.2	0.2	0.2
Psychiatry and child psychiatry	4.8	5.2	5.0	4.7	6.0	6.4	6.6
Radiology and subspecialties	5.3	5.3	6.1	6.5	6.6	6.2	6.9
General surgery and subspecialties[a]	9.4	8.4	8.0	8.0	8.3	8.4	8.5
Neurological surgery	1.3	1.1	1.1	0.9	1.1	0.9	1.2
Orthopedic surgery	6.0	6.9	6.6	6.4	6.6	6.7	5.8
Otolaryngology	2.0	2.5	2.3	2.3	2.6	2.6	2.4
Urology	1.3	1.6	1.8	2.3	2.4	2.1	2.3
No response	0.6	0.2	0.5	0.4	0.6	0.3	0.1

[a] Subspecialties include critical care, pediatric, plastic, and thoracic surgery.

SOURCE: Association of American Medical Colleges, 1981–1987. Questionnaire administered each year to all graduating seniors, Washington, D.C. The 1987 response rate was 71.4 percent ($N = 11{,}307$).

the committee reviewed the results of 30 surveys in 23 states, along with 9 national studies. This body of literature focused almost exclusively on physicians' own reports of their decisions to provide obstetrical care.

The studies vary enormously in scope, methodology, and rigor. Some are detailed, whereas others are simple, one-page questionnaires developed and analyzed by state medical and obstetrics-gynecology societies. Most of the studies are descriptive and do not include tests for statistical significance. A table summarizing the methodology of each study reviewed by the committee, discussing the differences among them, and indicating their implications is given in Appendix A.

Response to Concerns About Liability

The committee reviewed the results of the studies that addressed the question of whether professional liability concerns were leading physicians and other providers of obstetrical services to curtail or eliminate the obstetrical component of their practices. The imprecise phraseology used by many of these surveys caused some committee members to conclude that the available literature may tend to overstate the importance of professional liability concerns in physicians' decision making. However, the committee was persuaded that, despite their limitations, these surveys indicate a consistent trend: a significant number of obstetrician-gynecologists and family physicians are eliminating obstetrics, reducing care to identifiable high-risk populations, or reducing the overall number of deliveries they perform in response to professional liability concerns (see Appendix B).

Elimination of Obstetrical Practice

In the companion volume of this report Deborah Lewis-Idema analyzes the state survey data that measure the reports of obstetrician-gynecologists eliminating obstetrics in response to professional liability concerns (Lewis-Idema, 1989). The results of her analysis are set forth in Tables 3.2 and 3.3. In every state sizable numbers of physicians report that they are eliminating obstetrics: the range is from 7 to 75 percent, with a median of 25 percent. Since some of these surveys include family practitioners and, in one case, nurse-midwives, results from obstetrician-gynecologists were examined separately. The 14 state studies that provided information for obstetrician-gynecologists separately report from 6 to 30 percent discontinuing obstetrics. In the median state constructed from those surveyed, 17 percent of obstetrician-gynecologists reported eliminating obstetrics. ACOG's national membership surveys report lower proportions—12.4 percent in the 1987 survey, up from 9.1 percent in 1983 (ACOG, 1983, 1988). However, the ACOG data confirm the finding that substantial numbers of obstetrician-gynecologists are abandoning obstetrical practice because of professional liability concerns.

Whereas the state studies do not generally include information on age, the ACOG surveys indicate that physicians are stopping obstetrical practice at an earlier point in their careers in response to professional liability concerns. In 1985, 54 percent of obstetrician-gynecologists not practicing obstetrics had ceased practice before age 55 (ACOG, 1985); in 1987 this had risen to 66.8 percent. Six percent had stopped very early (before age 35), compared with slightly under 3 percent two years before (ACOG, 1985, 1988) (see Table 3.4).

TABLE 3.2 Studies of Summary Data from Professional Liability and Obstetrics

Range	Eliminated Obstetrics All Physicians	 Ob-Gyns	Reduced High-Risk Care	Reduced Volume
All Studies				
No. Studies	33	17	11	13
Minimum %	7.00	5.90	16.00	5.80
Maximum %	75.00	30.00	48.70	28.00
Median %	25.00	14.30	23.60	12.90
State Studies				
No. Studies	27	14	8	8
Minimum %	7.00	5.90	16.00	5.80
Maximum %	75.00	30.00	48.70	28.00
Median %	25.00	17.50	24.30	18.50

SOURCE: Lewis-Idema, D. 1989. Medical professional liability and access to obstetrical care: Is there a crisis? In Medical Professional Liability and the Delivery of Obstetrical Care: Vol. II, An Interdisciplinary Review. Washington, D.C.: National Academy Press.

TABLE 3.3 Physicians Reporting Malpractice Issues as a Factor in Their Decision to Change Practice

Range	Studies ($N = 16$) of All Physicians (%)	Studies ($N = 13$) of Physicians Who Changed Practice (%)
Minimum	9.10	18.60
Maximum	70.00	99.00
Median	24.15	57.00

SOURCE: Lewis-Idema, D. 1989. Medical professional liability and access to obstetrical care: Is there a crisis? In Medical Professional Liability and the Delivery of Obstetrical Care: Vol. II, An Interdisciplinary Review. Washington, D.C.: National Academy Press.

TABLE 3.4 Age at Which Obstetrician-Gynecologists Stopped Obstetrical Practice

Age	1985 (%)	1987 (%)
<35 years	2.8	6.1
35 to 44	22.5	23.2
45 to 54	28.9	37.5

SOURCE: American College of Obstetricians and Gynecologists. 1985. Professional Liability Insurance and Its Effect: Report of a Survey of ACOG's Membership. Washington, D.C.; 1988 Professional Liability and Its Effects: Report of a 1987 Survey of ACOG's Membership. Washington, D.C.

Reduced Volume of Obstetrical Care

Even where obstetrician-gynecologists are not eliminating obstetrical practice altogether, they are limiting their practices. ACOG reports that approximately 13 percent of obstetrician-gynecologists reduced the volume of obstetrical care they provided in 1984. However, the committee notes that these surveys neither report the actual changes in average caseload nor quantify the reduced volume of deliveries, making it difficult to evaluate the implications of these reductions. Only eight of the state studies report this practice change, with 6 to 28 percent of physicians saying they were reducing the number of deliveries they perform. The median was 18.5 percent.

Reduced Care of High-Risk Women

The committee was concerned about the implications of these trends for the delivery of care to high-risk women. The state studies report from 16 to 49 percent of obstetrician-gynecologists reducing service to high-risk women. In the median state, almost one-quarter of obstetrician-gynecologists had reduced or eliminated service to this population. This is similar to the rates reported by ACOG, which found that in 1987, 27 percent of obstetrician-gynecologists had reduced or eliminated high-risk care (ACOG, 1988) (see Table 3.5).

Trends

Most of the state studies did not cover multiple years in sufficient detail to allow analysis of trends in practice changes. A number of the studies asked about plans to eliminate obstetrics—and between 16 and 34 percent of respondents indicated they planned to discontinue practice

TABLE 3.5 Percentage of Obstetrician-Gynecologists' Practice Devoted to High-Risk Care, 1985 and 1987

Percentage	1985	1987
10 or less	1.6	45.4
11 to 20	50.1	26.9
21 or more	48.3	25.6

SOURCE: American College of Obstetricians and Gynecologists. 1985. Professional Liability Insurance and Its Effects: Report of a Survey of ACOG's Membership. Washington, D.C.; 1988. Professional Liability and Its Effects: Report of a 1987 Survey of ACOG's Membership. Washington, D.C.

within the next few years. Because intentions can change, these responses are more an indicator of concern than of actual practice change. Among the states surveyed, Massachusetts is a major exception. Recalculation of the reported data shows that during 1984, 3.3 percent of practicing obstetrician-gynecologists dropped obstetrics. During the following year, 8 percent stopped practicing obstetrics; and during 1986, 14 percent did.

ACOG's survey data reveal similar attrition between 1983 and 1985, from 9.3 percent to 12.3 percent. The 1987 survey reports 12.4 percent, no appreciable difference from 1985. This may signal that the trend toward eliminating obstetrical practice is leveling off, but it is too soon to assert this with any degree of certainty. The ACOG data suggest that obstetrician-gynecologists are continuing to reduce care to high-risk women, from 17.7 percent of members in 1983 to 27.1 percent in 1987 (ACOG, 1983, 1988).

The state studies tend to show greater change and higher proportions of obstetrician-gynecologists altering their practice of obstetrics than the national ACOG data. This may reflect methodological differences among studies, but it may also reflect real geographic variation in physician behavior. It is logical to expect studies to have been conducted in those states where professional liability issues have been a particularly critical concern.

Each of ACOG's studies has shown major regional variations in practice changes. The greatest changes have occurred in Florida, where one-quarter of obstetrician-gynecologists report eliminating obstetrics, about one-third have curtailed care of high-risk women, and a further 15 percent report reducing overall number of deliveries. Apart from Florida, the ACOG data suggest different responses in different parts of the country. District 1 (New England) and District 7 (the area bounded by Texas, Alabama, Kansas, and Missouri) report the highest proportion of physicians dropping obstetrics (approximately 15 percent). The mid-Atlantic, midwestern, and mountain states report the highest proportions curtailing high-risk care (approximately 30 percent), while District 2 (New York) and District 7 have the greater number of physicians reducing deliveries.

The committee was concerned, as noted above, that the questions used in these surveys tended to overstate the effect of professional liability concerns on obstetrician-gynecologists' decision making. However, in those surveys where the question of motivation was separated from the act of changing obstetrical practice, professional liability issues were consistently cited by more than half the respondents as a major determinant in their decision to change their obstetrical practice. For example, in Georgia in 1986, 55 percent of obstetrician-gynecologists who stopped practicing obstetrics cited professional liability concerns as the *sole* reason for their decision (Appendix B).

The committee believes it is reasonable to conclude that professional liability concerns are increasingly perceived by obstetrician-gynecologists to be a significant factor influencing their decisions to curtail or eliminate obstetrical services and to avoid high-risk patients. For those who may have been considering changing their practice for personal reasons, professional liability concerns may simply be the factor that finally tipped the balance. Although it is impossible to calculate with certainty the number of obstetrician-gynecologists who have left obstetrics or limited their practice because of professional liability issues, the conclusion that a sizable number are doing so is inescapable.

FAMILY PHYSICIANS

According to an analysis prepared for the committee by Deborah Lewis-Idema, nearly one-third of all physicians rendering patient care in nonmetropolitan areas of the United States are general and family physicians. Moreover, these physicians account for approximately two-thirds of the private practitioners delivering obstetrical services to rural women (Lewis-Idema, 1988). Accordingly, the committee wanted to determine what effect professional liability concerns were having on family physicians and on the delivery of obstetrical services by them to women in rural areas.

Malpractice Insurance Costs

Like other providers of obstetrical care, family physicians have been affected by professional liability problems. Insurance costs for family physicians practicing obstetrics are significantly higher than costs for family physicians not practicing obstetrics. The American Academy of Family Physicians reported that the average premium in 1985 for $1 million/$3 million malpractice coverage[1] with obstetrics was $9,447 compared to $5,300 without obstetrics (AAFP, 1986, 1987). Although the survey covering 1986 had a low response rate, it indicated major premium increases and continuation of the differential—to $11,389 with obstetrics and $6,037 without. In some areas of the country the differential is even greater. For instance, Washington and Alabama family physicians pay almost three times as much for coverage that includes obstetrics as for coverage that does not.

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[1] A $1 million/$3 million policy is a policy under which an insurer will pay up to $1 million on each claim and up to an aggregate of $3 million per year.

To be sure, professional liability insurance premiums for family physicians are much lower than they are for obstetrician-gynecologists. This reflects the fact that obstetrics is only one part of the family physician's total practice. The average obstetrician-gynecologist performs four to five times as many deliveries each year as the average family physician, but the family physician experiences the same concerns about professional liability insurance costs and the risk of malpractice litigation as the obstetrician-gynecologist does.

For the family physician, the higher costs of coverage for obstetrical practice can pose fairly straightforward economic issues. Is the volume of deliveries provided by the practitioner (and the revenue from those deliveries) sufficient to justify the increased expenditure on professional liability insurance? Unless the physician has a large enough obstetrical practice, the cost of insurance may virtually outweigh revenue.

Table 3.6 uses data from Washington State to illustrate the nature of this decision. Family physicians paid $9,000 more for obstetrical coverage; obstetrician-gynecologists paid an additional $11,000 above premiums for gynecology only. The family physician performing 30 deliveries a year (the median number) paid $300 per delivery for insurance.

TABLE **3.6** Estimated Additional Malpractice Premium Cost Per Delivery, Family Physicians and Obstetrician-Gynecologists in Washington State, 1986

Physician	Deliveries (No.)	Added Cost for Malpractice Insurance ($)	Cost of Insurance Per Delivery ($)
Family Physicians			
Median, rural M.D.s	35	9,187	262.49
Median, all M.D.s	30	9,187	306.23
Maximum, rural M.D.s	150	9,187	61.25
Maximum, all M.D.s	200	9,187	45.94
Obstetrician-Gynecologists			
Median, semirural M.D.s	110	11,244	102.22
Median, all M.D.s	121	11,244	92.93
Maximum, semirural M.D.s	210	11,244	53.54
Maximum, all M.D.s	350	11,244	32.13

NOTES: Because no rural obstetrician-gynecologists were identified, data for specialists in semirural areas were used instead. The authors reported premiums for family physicians practicing obstetrics at $13,511; premiums for those not practicing obstetrics or performing surgery were $4,324. For obstetrician-gynecologists, premiums were $33,026 with obstetrics and $21,782 for surgical gynecology without obstetrics.

SOURCE: Rosenblatt, R. A., and B. Detering. 1988. Changing patterns of obstetric practice in Washington State. Fam. Med. 20:101–107.

The rural family physician, with a median number of 35 deliveries, paid slightly less, $262. Obstetrician-gynecologists, because of their much larger practices, experienced much lower premium costs per delivery. An obstetrician with the median number of deliveries (121) paid approximately $93 per delivery for obstetrical malpractice coverage.

Other Economic Factors

Other economic factors characteristic of rural medical practice may also affect physicians' decisions. For example, average charges for services tend to be lower in rural areas. In 1985 a physician's charges for a maternity package, including maternity and newborn care, averaged $834 in rural areas and $977 in urban ones (Lewis-Idema, 1988). In 1980 the National Medical Care Utilization and Expenditures Study found that the charge for a prenatal visit was $27 in nonmetropolitan areas, compared with $48 in metropolitan ones (AGI, 1987).

Rural areas also tend to have higher proportions of self-pay deliveries. According to the National Survey of Family Growth, 16 percent of nonmetropolitan area births between 1979 and 1982 were self-pay, compared with approximately 12 percent of metropolitan births (Lewis-Idema, 1988). Although the number of no-payment deliveries was much higher in metropolitan areas, no-payment deliveries constituted a higher percentage of deliveries in rural areas. Between 1979 and 1982 nonmetropolitan areas accounted for 23 percent of all deliveries and 46 percent of no-payment deliveries.

Finally, family physicians may be serving a higher proportion of no-pay patients than obstetrician-gynecologists. The data on services by specialty and patient payer status are quite limited. The Oregon Medical Association found that 34 percent of family physician deliveries were partial or no-payment because of patients' inability to pay, compared with about 21 percent of obstetrician-gynecologists' deliveries (Oregon Medical Association, 1987). Although these data reflect only one state's experience, the committee believes that the subject deserves further exploration.

Concerns About Professional Liability

Although insurance costs have been the focus of policy debate, particularly at the state level, risk aversion, or fear of suit, appears to be an equally strong concern among physicians. Physicians report that they find the process of defending a lawsuit against charges of professional incompetence always disruptive and often agonizing. Even cases that are settled or that the physician ultimately wins can have a devastating effect on a physician who must defend his professional skills in court.

It is difficult to determine whether family physicians are as concerned about the likelihood of litigation as obstetrician-gynecologists. According to the General Accounting Office, family physicians are *not* experiencing disproportionate litigation rates compared with other physicians. General practitioners and family practitioners each constitute approximately 6 percent of all physicians in the United States, and each accounted for approximately 6 percent of claims closed in 1984 (GAO, 1987b). Unfortunately, the claims data do not allow one to distinguish the proportion of obstetrical claims against family physicians.

Actual litigation rates do not necessarily dissipate physicians' concern about the possibility of being sued. Family physicians are well aware of the high awards that sometimes result from contested obstetrical cases—and the potential impact on their economic well-being of one such decision. In a rural community, concern about the potential effect, both social and economic, of being sued can also be considerable. Although family practitioners perform cesarean sections, family practice obstetrics generally centers on low-risk patients. As obstetricians reduce high-risk care, fewer referral sources are available to a rural practitioner. Furthermore, low-risk obstetrical cases can become high risk, even during delivery, and the family physician may feel particularly vulnerable to suit in such circumstances.

Response to Insurance and Liability Concerns

The committee identified 21 state studies and 5 national studies addressing professional liability and family physicians or obstetrical care in rural areas. Appendix C summarizes the study findings. All the physician surveys sought to examine the same question (that is, provider response to professional liability concerns), but methodology and response rates differed. As with the surveys of obstetricians, one of the most important weaknesses in the studies is the manner in which questions were phrased. The key questions regarding changes in practice tended to be imprecise, suggestive, or both.

Because of the way the questions were phrased, the importance of professional liability concerns as a determinant of change in physician practice could be overstated. Fortunately, several of the studies of family physicians, particularly those in Alabama, Ohio, and Washington, provided the respondent a broader range of options for explaining practice changes.

Elimination of Obstetrical Practice

Despite their limitations, the studies indicate that a considerable number of family practitioners are dropping obstetrics because of concerns about professional liability. The AAFP reported that, at the end of 1985, 23.3 percent of its members had stopped practicing obstetrics because of professional liability concerns (AAFP, 1987). The state studies reported that between 8 and 75 percent of family physicians stopped practicing obstetrics in the last five years. In addition, the AAFP reports that close to 10 percent of its members are reducing their volume of obstetrical care (AAFP, 1986).

Further examination of the state studies revealed that the attrition rate among family physicians providing obstetrical care appears to be higher than that among obstetrician-gynecologists. ACOG reports in its most recent study that approximately 12 percent of obstetrician-gynecologists have stopped obstetrical practice in response to professional liability concerns, half the rate reported for family physicians by AAFP (ACOG, 1988). The seven state studies that allow specific comparison of changes for family physicians and obstetrician-gynecologists show a similar pattern. In only one (Maryland) was the proportion of family physicians stopping obstetrics lower than the proportion of obstetricians. In the others, the proportion was significantly higher (Appendix C).

There are several explanations for this phenomenon. One is that, for family physicians concerned about the cost of malpractice insurance, the option of eliminating obstetrics is a more viable—and productive—economic alternative than it is for obstetrician-gynecologists. In Arizona most obstetricians practicing in rural areas stated that they could not support themselves if their practice did not include obstetrics as well as gynecology.

Whereas a family physician could have many reasons for eliminating obstetrical practice in the 1980s, the surveys demonstrate a consistent concern with professional liability issues. Between one-half and three-quarters of family physicians cite the cost of malpractice insurance or the risk of suit, or both, as a significant factor in their decision to discontinue obstetrical practice. In those surveys that separately probed the issue of a physician's motivation for eliminating obstetrics, professional liability issues were cited by more than half of the respondents as the major determinant in their decision. Even those surveys that offered respondents a broad range of possible reasons for eliminating obstetrics demonstrated the primacy of professional liability concerns (Lewis-Idema, 1988).

Adverse Effects on Rural Areas

When family physicians drop obstetrics, women in rural areas are the most severely affected. Not all the studies inquired about geographic variations in practice changes or their impact on delivery of services, but those that did indicated major reductions in obstetrical care in rural areas (Appendix C). For example:

- In 1986, 17 counties in Georgia had no obstetrical providers; there were only 25 physicians providing care in rural Nevada. One-third of Arizona's family physicians outside of Maricopa and Pima counties (Phoenix and Tucson) had stopped providing obstetrical care by the end of 1985. In Idaho more than one-quarter of obstetrician-gynecologists have stopped providing obstetrics; in West Virginia, another largely rural state, more than half the obstetrician-gynecologists have considered leaving the state.
- In both California and Oregon the proportion of rural physicians reporting women without access to care was higher than the proportion of urban physicians reporting lack of access. Two-fifths of family physicians in rural south Georgia report obstetrical shortages in their area. Although the number of physicians who have stopped obstetrics is higher in Detroit, 69 percent of rural Michigan physicians report access problems, compared with 61 percent in Detroit.
- A survey of small, rural California hospitals reported that 30 of 56 respondents providing obstetrical care had family physicians on their staff who were planning to drop obstetrics. Thirty-six of the hospitals (64 percent) indicated that they would reduce or eliminate their obstetrical services.

The implications of the information from state surveys are given further weight by the results of the National Governors' Association (NGA) survey of state Medicaid and Maternal and Child Health (MCH) agencies in late 1987 (NGA, 1988). Eighty-one of the 101 agencies surveyed (80 percent) responded to the questionnaire, and a response was received from at least one agency in every state (but not the District of Columbia).

Although the NGA study was designed to assess provider participation issues generally, the results point toward major problems in rural areas. Sixty agencies responded to an open-ended question by indicating geographic areas with significant access problems. Eighty-seven percent of these reported that the problem was particularly acute in rural parts of the state. After eliminating duplicative responses for a state, 35 of the 50 states reported participation and access problems in rural areas; only 3 said they had problems in suburban or urban locales.

Moreover, in response to an open-ended question, 14 states reported a total of 246 counties with no obstetrical care provider (general practitioner, family practitioner, or obstetrician-gynecologist), and 3 reported closure of 42 hospital obstetrical units in the last two years. Twenty-one states reported 484 counties where women receiving care through Medicaid or MCH programs have limited access to prenatal and delivery services (NGA, 1988).

Comparison of the state reports with AMA data on physician distribution suggests that the problem of access to obstetrical care in rural areas may be significant. Whereas the NGA data report that in a survey of 14 states 252 counties are without obstetrical providers, the AMA reports 126 counties in 25 states with no practicing physician at all (AMA, 1987). This suggests that there are a significant number of counties with some physicians but no obstetrical care providers.

The data on the implications of professional liability for family physicians' provision of obstetrical services are imperfect, but they point in one direction: significant numbers of family practitioners are curtailing or eliminating obstetrical care in response to malpractice concerns. As noted earlier, the importance of professional liability issues, as distinct from personal considerations, can never be precisely known from survey data based on physicians' own reports.

Because family physicians are a key component of the rural health care delivery system, these reductions have a disproportionate effect on access to care for women in rural areas. Using data from AAFP and ACOG, an analysis performed by Deborah Lewis-Idema at the request of the committee estimated that the number of obstetrical providers in nonmetropolitan areas has fallen by approximately 20 percent in the last five years (Figure 3.1). Although the available data do not allow one to determine whether these reductions are centered in particular rural locales, the state reports, coupled with the NGA information, indicate that the reductions are widespread. Since public agencies rely on private physicians to render health services, they are likely to be well aware of geographic areas without obstetrical providers. The extent of concern among public agencies indicates that growing numbers of rural communities are experiencing access problems that are exacerbated by professional liability concerns.

NURSE-MIDWIVES

The number of births attended by nurse-midwives has increased substantially in recent years. In 1985 nurse-midwives attended 2.3 percent of births in hospitals, compared with 1.4 percent in 1980 (Cohn, 1989). Part of this increase may be attributed to the enactment of Public

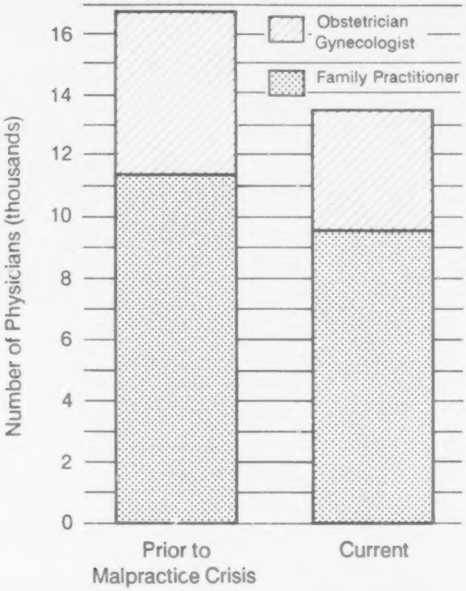

FIGURE 3.1 Changes in number of rural physicians practicing obstetrics. Source: Lewis-Idema, D. 1989. Medical professional liability and access to obstetrical care· Is there a crisis? In Medical Professional Liability and the Delivery of Obstetrical Care: Vol. II, Interdisciplinary Review. Washington, D.C.: National Academy Press.

Law 96-499 on December 5, 1980, which provided for the reimbursement under Medicaid of services furnished by nurse-midwives. The GAO reports that, as of September 1987, all 50 states have a law or regulation allowing nurse-midwives to practice, and 44 of them cover nurse-midwife services under their Medicaid programs (GAO, 1987a). The proportion of births attended by nurse-midwives varies greatly from state to state. In 1985 they attended 4 percent of infants born in hospitals in 14 states and the District of Columbia and one-tenth of 1 percent or less of deliveries in 9 other states.

The increasing popularity of freestanding birth centers is also likely to lead to greater reliance on nurse-midwives, who generally staff and manage them. Sometimes these centers serve populations lacking other sources of care, but often they serve clients seeking alternatives to hospital care, with its heavy dependence on technology. Data on freestanding birth centers are currently unavailable. The National Association of Childbearing Centers is conducting a study of women receiving care at these centers, however, and its results should be available in 1989.

Availability and Costs of Professional Liability Insurance

According to a 1982 survey by the American College of Nurse-Midwives, less than 6 percent of its members have ever been sued (ACNM, 1984). Moreover, actuarial analyses of the claims experience of members confirm that the risks of delivery by certified nurse-midwives are not high (Cohn, 1989). Despite these facts, it has been difficult for certified nurse-midwives to obtain professional liability insurance.

Until 1984 the ACNM offered a trade association-sponsored professional liability insurance policy, which insured as many as 2,400 of its members. On cancellation of that policy by the carrier, the ACNM managed to find another carrier for approximately one year. In July 1985, however, the second carrier canceled its policies and became insolvent, leaving ACNM members without an insurer. In July 1986, after approximately one year without a trade association-sponsored professional liability insurance policy, the ACNM membership was offered a commercial policy by a consortium of insurers led by CNA Insurance Company. The consortium offers a $1 million per claim/$1 million annual aggregate policy, with a mature premium of approximately $6,000 per year. In contrast to physicians' professional liability policies, the premiums do not vary from state to state or by the number of deliveries performed (Cohn, 1989).

Data from a recent survey of approximately 300 nurse-midwives indicate that the average insurance premium of $4,000 represents close to 14 percent of a nurse-midwife's gross income; obstetricians pay approximately 10 percent of their gross income on professional liability insurance (ACOG, 1988). Sixty-four percent of the nurse-midwives sampled were working full-time, 21 percent part-time. For 78 percent of them, their employer paid the insurance premium; 16 percent paid their own malpractice premium, and 6 percent split the premium with their employer. The study noted that, although professional liability insurance premiums for nurse-midwives had risen 114 percent during the preceding year, nurse-midwifery fees had risen 18 percent and nurse-midwives' income had risen 7 percent (Patch and Holaday, 1988).

Response to Insurance Problems

Data available to the committee indicate that the problems associated with the rising cost and diminished availability of professional liability insurance have changed the organization of nurse-midwifery practice, changed the ways in which nurse-midwives practice their profession, and curtailed opportunities for nurse-midwives.

Changes in Practice Setting

The difficulties of obtaining professional liability insurance in many states have made it virtually impossible for nurse-midwives to practice other than as the employees of physicians. Many nurse-midwives would prefer to form their own practices and to employ physicians as consultants for high-risk or complicated deliveries. Without available insurance, however, this practice pattern, which affords maximum professional autonomy, while not illegal, is practically impossible.

The availability of medical liability insurance has also affected birth centers, which represent an innovation in obstetrical care that is favored by nurse-midwives. These centers were significantly affected by the loss of the ACNM master policy. The Childbearing Center (CBC) in New York City is one such center, whose plight has been brought to the attention of the committee by Ruth Watson Lubic, the director of its parent organization, the Maternity Center Association. The CBC is a New York State-licensed freestanding facility that provides comprehensive maternity care to families anticipating a normal childbirth. It does so at less than 40 percent of the cost of in-hospital normal childbirth, according to Empire State Blue Cross-Blue Shield.

For 8 of the 10 years of its existence, the CBC was covered by the Medical Malpractice Insurance Association (MMIA), the joint underwriters association in New York State. MMIA, by legislative mandate, must insure any licensed physician in New York State who cannot otherwise get coverage. In late spring 1985, when the ACNM lost its policy, New York State nurse-midwives went to Albany to persuade the legislature to mandate their coverage by the MMIA. At that time the MMIA proposed annual premiums of $72,300 for nurse-midwives attending a birth without a doctor on the premises—a figure approximately two and one-half times the gross earnings of the average nurse-midwife. The nurse-midwives were told that these rates were based on recommendations supplied by actuarial consultants reflecting the high claims experience of New York State obstetricians. According to statistics compiled by the National Association of Childbearing Centers, there have been only 12 suits against birth centers nationwide, with a total payment to date of $112,511. The historically low claims experience of nurse-midwives was apparently not used as the basis for the proposed rates.

The current insurance situation has also presented difficulties for nurse-midwives who want to practice in hospitals. Hospitals generally require proof that their nonemployee professional and medical staffs carry professional liability insurance and often specify a $1 million/$3 million policy as a minimum amount. Because the ACNM does not offer professional liability insurance in excess of $1 million/$1 million, nurse-midwives are often denied hospital privileges.

Many carriers who insure obstetricians have placed surcharges on premiums of obstetricians who employ or work with nurse-midwives. This, too, has curtailed the availability of nurse-midwifery services to patients. ACOG data indicate that 47 percent of obstetricians who employed nurse-midwives in 1987 had had professional liability surcharges imposed (ACOG, 1988).

Changes in Techniques of Practice

Finally, available data also indicate that the professional liability climate is affecting the techniques of practice of nurse-midwives. Twenty-one percent stated that they were ordering more diagnostic ultrasounds, 20 percent were doing more nonstress testing, 19 percent were doing more laboratory testing, and 16 percent were doing more electronic fetal monitoring. Thirteen percent of the nurse-midwives responding to this survey indicated that they were giving up nurse-midwifery practice. Thirty-four percent cited the increased cost of coverage and 65 percent the decreased amount of coverage. More than 30 percent of the nurse-midwives indicated that there were fewer job opportunities for them than there had been before the costs of insurance rose and coverage decreased (Patch and Holaday, 1988).

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4

The Impact of Medical Professional Liability on the Provision of Obstetrical Care to Poor Women and Women Served by Medicaid

For low-income patients, who already confront more barriers to health care than other Americans, the impact of professional liability concerns on obstetrical care is particularly acute. In a 1986 study the Robert Wood Johnson Foundation found that access to medical care among the nation's poor, minority, and uninsured citizens has deteriorated (Robert Wood Johnson Foundation, 1987). Moreover, the study concluded that the improvements it had noted in its 1982 survey have been reversed, despite a nationwide expansion in the number of medical care providers.

Inadequate financing has always been one of the most significant barriers to obstetrical care for low-income women in the United States. Expansions of Medicaid eligibility enacted in 1986 under the Omnibus Budget Reconciliation Act should improve financial access. As of April 1988, 32 states had taken advantage of them (Lewis-Idema, 1988). The committee notes, however, that there will always be some physicians who are unwilling to care for poor patients, regardless of the level of reimbursement.

The apparent changes in obstetrical practice due to professional liability issues have led to increasing concern that the potential of the new Medicaid coverage options will not be fully realized. If physicians reduce participation in Medicaid and other publicly funded programs—or stop providing obstetrical services altogether—access to care for the population most in need will be jeopardized.

PROFESSIONAL LIABILITY AND OBSTETRICAL CARE UNDER MEDICAID

As part of its fact-finding activities, the committee examined the relationship of professional liability issues, physician participation in Medicaid, and low-income women's access to care. It attempted to determine whether the concerns of many persons who have examined the relationship are well founded and, if so, how the problems it poses might be addressed. The committee recognizes that professional liability issues are only one of many factors affecting access to obstetrical services for low-income women. Moreover, although the committee focused on professional liability issues, it urges that efforts to address the declining availability to obstetrical care should not be limited to improving the professional liability system.

Studies directly addressing the question of whether professional liability concerns are inhibiting physician participation in Medicaid are extremely limited. The literature on professional liability has centered on insurance costs and the effectiveness of various tort reforms. Most of the studies on Medicaid participation were published prior to the current medical professional liability insurance crisis. Examining the relationship between professional liability concerns and access to obstetrical care for Medicaid recipients, therefore, is much like assembling a mosaic. In its effort to put together a picture of the situation, the committee examined 30 state studies and 9 national ones conducted principally by state and national medical associations (see Appendixes A and D). It also included consultant studies, research conducted for the National Governors' Association, and university-based research. Below are the committee's findings.

BACKGROUND: THE ROLE OF MEDICAID IN THE DELIVERY OF OBSTETRICAL CARE

Medicaid is a federal–state program under which the federal government sets basic standards and provides matching funds and the states establish eligibility, benefits, and reimbursement. Since its enactment in 1965, the program has played a critical role in providing financial access to obstetrical services for low-income women. Between 1979 and 1982, Medicaid paid for an estimated 10 percent of all births in the United States (AGI, 1987). In 1984–1985, Medicaid recipients accounted for almost 15 percent of all births in the United States, from 3.8 percent of births in South Dakota to 25 percent in Michigan. During this period, the program spent $1.2 billion on these services, an average of $2,200 per birth (AGI, 1987).

Because each state establishes its own program rules (within federal guidelines), the role of Medicaid varies considerably. Prior to 1986, eligibility for Medicaid coverage for most beneficiaries was tied to eligibility for the Aid to Families with Dependent Children (AFDC) program. A series of reforms since 1986 has severed this link to AFDC and extended Medicaid coverage to many individuals who are not "categorically needy," as traditionally defined by Medicaid. As of October 1988, 43 states had programs to provide Medicaid coverage to children and pregnant women with incomes below 100 percent of the federal poverty level. The Medicare catastrophic insurance law, enacted in 1988, mandates that by fiscal year 1990 all states extend coverage to infants and pregnant women with family incomes below 100 percent of the federal poverty level, regardless of AFDC eligibility.

Benefits are determined by both state and federal governments. Federal law mandates coverage of certain services, including inpatient hospital care, physician services, and early and periodic screening, diagnosis, and testing for children. There is a wide range of optional services, from pharmacy to physical therapy, that states may include in their programs if they wish.

Reimbursement policy is determined by the state. Since the enactment of Medicare prospective hospital payment in 1983, a number of states have changed their hospital payment systems to one based on diagnosis-related groups or some other prospective method. Physician reimbursement is on a fee-for-service basis, set according to the prevailing charge method, fee schedules, relative value scales, and similar methodologies.

The increase in births paid for by Medicaid since 1984 is due largely to the major expansion of Medicaid eligibility that has occurred over the past several years. Beginning in 1984, Congress enacted staged expansions of coverage for low-income women and children. The 1986 Omnibus Budget Reconciliation Act allows states to provide coverage to children and pregnant women with incomes up to the federal poverty level. The 1987 act authorized incomes up to 185 percent of the poverty level.

As of April 1988, 32 states had adopted the new option for eligibility and 22 had begun implementation. All but two states have established eligibility at 100 percent of the federal poverty level: Rhode Island and Massachusetts recently increased eligibility to 185 percent.

The law also allows states to simplify and improve the process of establishing eligibility for Medicaid. States may waive the usual asset test, an option adopted by 23 states. They may provide for continuous eligibility, whereby a pregnant woman, once eligible, would not lose Medicaid during her pregnancy because of fluctuations in income (25 states). The presumptive eligibility option allows providers to assume that a patient is eligible, based on her statement of income, and to render services for a specified period of time while the Medicaid application is being processed (15 states). In addition to expanding existing coverage, several states have developed new programs to reduce infant mortality and high-risk births, using Medicaid and Maternal and Child Health (MCH) agencies as vehicles for financing and delivering services.

Physician Participation in Medicaid

Traditionally, a minority of physicians has provided the bulk of services to Medicaid patients. In 1976, 5.5 percent of all physicians served almost one-third of all Medicaid patients (Mitchell and Cromwell, 1980). Participation among obstetrician-gynecologists has always been low—63.2 percent served Medicaid patients in 1976, compared with 77.4 percent for all physicians (Mitchell and Schurman, 1984). Only three identified specialists (allergists, cardiologists, and psychiatrists) had lower participation rates. Obstetrician-gynecologists who participated in Medicaid also tended to have lighter caseloads—8.3 percent of patients were Medicaid recipients, compared with 13.3 percent for other primary care physicians.

Although national data on physician participation since the mid-1970s are limited, the situation does not appear to have improved significantly. The Alan Guttmacher Institute reported that in 1986 40 percent of obstetrician-gynecologists did not serve Medicaid patients—a participation rate virtually identical to that 10 years earlier, despite an overall worsening of the malpractice problem (AGI, 1987).

The primary sources of data on physician participation are the state Medicaid claims payment systems. These systems are structured to manage day-to-day claims processing, but for a variety of reasons they do not provide reliable information for analyzing changes in physician participation. In most states, for example, physicians are not required to use unique provider numbers; some have a different number for each practice location, and in other cases a group of physicians may bill under a single number. Analysis of responses to a recent National Governors' Association survey, which attempted to collect data on changes in participation, indicates that the combined effect of these problems is to overstate the number of participating physicians (NGA, 1988).

The reasons for physician nonparticipation are many. Several studies done in the mid-1970s found that low reimbursement and delays in paying bills were significant factors reducing participation. In considering the relationship of professional liability concerns to access to obstetrical services under Medicaid, two aspects of this literature are significant.

First, the studies found that the differential between Medicaid and private reimbursement was more important than the absolute Medicaid payment and that reducing the differential increases participation in Medicaid. Medicaid reimbursements have always tended to be below the average private charge. In 1986 Medicaid fees were an estimated 44 percent of the average nationwide community charge for obstetrical care. Over the past couple of years, numerous states have been increasing Medicaid payment rates for obstetrical services—some by as much as 100 percent. The effect of these increases on physician participation remains to be seen; however, since private charges have also been rising, increases in Medicaid reimbursement may have less than the hoped-for effect in improving participation (Jones and Hamburger, 1976).

Second, an important reimbursement factor that is frequently overlooked is the practice among obstetrical providers of requiring payment for services in advance of delivery. Since Medicaid can pay only for "services rendered," many states have interpreted this provision to prohibit payment except after delivery. This situation exacerbates the effects of low reimbursement rates.

Reduced Obstetrical Care for the Poor

Nine of the state studies specifically sought information on the provision of services to Medicaid and low-income women. Although the questions were different in each study examined, all of them show a sizable number of physicians reporting that they have reduced, or will reduce, services to this population because of concerns about potential professional liability (Appendixes A and B). For example:

- Fifty-five percent of Kentucky physicians do not serve Medicaid obstetrical patients. The proportion citing professional liability concerns as a reason for not participating was high: three-quarters of physicians who had reduced their volume of obstetrical care and one-third of those who had not changed their practice cited professional liability concerns as a reason for nonparticipation.
- Only one-third of Maryland obstetrician-gynecologists accept Medicaid.
- In Texas low-income patients average 10 percent of the obstetrics caseload. Approximately one-third of obstetrician-gynecologists report that they are limiting care of indigents "a great deal"; another one-third are not limiting care.
- In Washington 62 percent of obstetrician-gynecologists limit the number of Medicaid patients they serve.

- More than half the obstetrician-gynecologists in North Carolina were providing services in local health departments. Almost 30 percent reported stopping because of professional liability concerns.

The data reviewed by the committee suggest that there is an increasing trend among obstetricians toward reduction of care for high-risk patients. Although reduced availability of care for high-risk patients affects the entire population, it particularly affects low-income women, who are disproportionately represented among the high-risk group. These women are more likely to experience higher rates of infant mortality and low birthweight infants.

The National Governors' Association recently surveyed state Medicaid and Maternal and Child Health (MCH) agencies regarding provider participation in public perinatal care programs (NGA, 1988). The results, which are summarized in Table 4.1, include at least one response in every state but not in the District of Columbia. Overall, 60 percent of Medicaid programs and almost 90 percent of MCH programs are experiencing significant problems in provider participation for maternity care. Nine of 10 report that rising malpractice insurance costs have contributed to this problem.

The state agencies, which must rely on physicians to render care to their clientele, also report significant problems in recruiting and re-

TABLE 4.1 Agencies Reporting Selected Changes in Availability of Obstetrical Care

Change	Maternal and Child Health (%)	Medicaid (%)	All Agencies (%)
Providers dropping obstetrics	97.2	89.5	93.2
Ob-gyns			
General family practitioners	88.9	84.2	86.5
Community Health Centers	11.1	7.9	9.5
Ob-gyns not taking new patients	80.6	86.8	83.8
Physicians reducing participation	83.3	55.3	68.9
Ob-gyns reducing high-risk care	80.6	55.3	67.6
Physicians withdrawing from public programs	77.8	44.7	60.8
Hospitals reducing emergency delivery	11.1	13.2	12.2

NOTE: N = 74 total agencies; 36 MCH and 38 Medicaid.

SOURCE: National Governors' Association Center for Policy Research, Health Policy Studies. 1988. Increasing Provider Participation: Strategies for Improving State Perinatal Care Programs. Washington, D.C.

taining participating physicians. In a number of counties, public program recipients are experiencing difficulty finding a physician who will treat them. Although reimbursement rates, traditionally the primary deterrent to participation, continue to be significant, a sizable number of physicians cite professional liability issues as a key factor in their decision not to participate in public programs.

The general reductions in obstetrical practice among obstetricians, family physicians, and nurse-midwives reported in both state and national survey data also appear to have a disproportionate effect on the availability of care for low-income women. Where attrition from practice has been high, caseloads for the remaining obstetrical providers are likely to increase, as the experience in Washington suggests. This, in turn, could create a vicious cycle, whereby providers continuing to accept Medicaid patients experience greater pressures on their time—possibly to the point where they, too, must begin restricting their Medicaid practice. Administrators report many instances of patients traveling long distances—more than 100 miles—for obstetrical care. Many low-income women have very limited access to transportation.

High Insurance Premiums, Low Reimbursement Rates

The available evidence suggests that physicians' concerns about professional liability issues can be divided into two categories—the cost of malpractice insurance and the risk of being sued. The provider surveys indicate that each is an important factor influencing physicians' decisions.

The rise in malpractice insurance premiums has intensified physicians' traditional concern about low Medicaid reimbursement for services. That concern is expressed by providers in two ways. One is that payments are too low to cover the costs of malpractice coverage. The other is that, with rising malpractice insurance costs, they must devote more time to private-paying patients to meet expenses.

Medicaid programs generally pay providers at rates well below those of private insurers or the average community charge. Table 4.2, prepared by Sara Rosenbaum and Dana Hughes of the Children's Defense Fund, compares Medicaid reimbursement rates for uncomplicated vaginal deliveries as of September 1987 to the cost of obstetrical premiums, by state. State Medicaid reimbursement rates were lower than malpractice premiums alone, not counting other overhead costs, in 8 of the 40 states included in the study. In Illinois, Missouri, and New Jersey, premium costs were more than $240 higher than the Medicaid reimbursement rate.

TABLE 4.2 Medical Malpractice Premiums by State for Obstetricians and Medicaid Reimbursement Rates for Normal Deliveries

State	State Medicaid Payment: Normal Delivery ($)	Insurance Premium Per Delivery[a] ($)
Alabama	450.00	430.56
Alaska	NA	NA
Arizona	NA	625.00
Arkansas	546.25	131.94
California	657.00	736.11
Colorado	510.00	388.89
Connecticut	861.30	NA
Delaware	519.00	347.22
District of Columbia	775.00	461.00
Florida	800.00	NA
Georgia	800.00	312.50
Hawaii	NA	NA
Idaho	450.00	527.78
Illinois	446.50	708.33
Indiana	533.00	145.83
Iowa	690.00	409.72
Kansas	750.00	201.39
Kentucky	370.00	305.56
Louisiana	445.56	527.78
Maine	500.00	347.22
Maryland	963.00	506.94
Massachusetts	1471.00	NA
Michigan	403.02	NA
Minnesota	455.00	326.39
Mississippi	623.60	430.56
Missouri	425.00	666.67
Montana	619.00	423.61
Nebraska	478.00	138.89
Nevada	708.57	666.67
New Hampshire	450.00	NA
New Jersey	236.00	527.78
New Mexico	354.79	NA
New York	550.00	NA
North Carolina	409.00	138.89
North Dakota	295.00	319.44
Ohio	386.00	569.44
Oklahoma	750.00	298.61
Oregon	853.24	625.00
Pennsylvania	437.00	222.00
Rhode Island	750.00	NA
South Carolina	485.00	152.78
South Dakota	325.00	201.39
Tennessee	725.00	201.39
Texas	686.50	181.00
Utah	518.71	500.00

(continues)

TABLE 4.2 Medical Malpractice Premiums by State for Obstetricians and Medicaid Reimbursement Rates for Normal Deliveries (*continued*)

State	State Medicaid Payment: Normal Delivery ($)	Insurance Premium Per Delivery[a] ($)
Vermont	350.00	250.00
Virginia	625.00	205.00
Washington	600.00	513.89
West Virginia	600.00	305.56
Wisconsin	590.22	229.17
Wyoming	787.50	458.33

[a] These are St. Paul Fire and Marine Insurance Company estimates of 1987 medical malpractice premiums for obstetricians. The per-delivery premium costs included are based on the company's estimated average obstetrical workload of three deliveries per week and working 48 weeks a year. The validity of these estimates and their generalizability are not known.

SOURCE: Hughes, D., and S. Rosenbaum. 1988. Children's Defense Fund. Washington, D.C.

Additional data from 36 states show that Medicaid payments averaged 44 percent of the approximate community charge for prenatal care and routine delivery. The highest state paid 76 percent, the lowest 14.8 percent. In many cases these rates represent major increases over prior years, since at least 20 states increased payments between 1984 and 1986 (NGA, 1988).

The problem of low reimbursement rates is complex, reflecting pressures on state budgets, competition among provider types for improved coverage and payment, and general state philosophies regarding Medicaid. Many of the states that are adopting the coverage options under the Omnibus Budget Reconciliation Act of 1986 or otherwise developing targeted programs for children and pregnant women are also examining their reimbursement policies. In addition to fee increases per se, some states are restructuring their payment schedules to encourage provider participation and to provide higher reimbursement for care of high-risk women. However, due to the complexity of the problem and to providers' professional liability concerns, many program administrators believe that increasing reimbursement levels may only help to stabilize physician participation in their programs, not necessarily increase it.

The states are likely to continue increasing their reimbursement rates for obstetrical providers. Analysis of changes enacted for 1987–1988 showed that nine states were adopting rate increases that averaged 33 percent and two were more than doubling their fees. Because of the low reimbursement rates that preceded these increases, however, some of the states will still be paying providers less than half the approximate community charge.

Fear of Suit

Although medical malpractice insurance costs have been the focus of policy debate, particularly at the state level, it is the committee's impression that subjective evaluations of professional liability risk, or the sheer fear of suit, appear to be an equally strong factor deterring physicians from serving low-income women. Given the fact that at least 7 of 10 obstetrician-gynecologists are likely to be sued in the course of their professional lives (ACOG, 1988), the desire to avoid situations perceived as risky is understandable.

Most observers believe that physicians' fear of suit may be as great a barrier to obstetrical care for low-income women as the rate of reimbursement. The committee heard numerous anecdotal reports that physicians perceive reducing care to Medicaid and low-income women as an effective means of reducing their exposure to high-risk patients. Particularly with new patients, where the likelihood of a problem pregnancy may be less clear, physicians may screen out poorer women because of their greater potential to develop high-risk pregnancies. There are no reliable data on this point.

Physicians are also concerned about continuity of care and risk management. Many low-income women receive prenatal care at a local health department clinic and deliver at the local hospital. In such cases, physicians may believe themselves to be in greater legal jeopardy if problems develop during the delivery. Moreover, managing high-risk pregnancies requires a commitment to continuity on the part of both patient and physician. If the physician believes the patient will not be committed to the process, the physician may be less willing to initiate care. It may be easier for the physician to simply stop serving Medicaid patients entirely than to attempt to make such judgments (if desired) on an individual basis.

It is ironic that the very factors that call for increased access to care can also intensify a physician's sense of risk when caring for low-income patients. The extent to which low-income women receive late or no prenatal care and are therefore at greater risk has been well documented (IOM, 1988). Indeed, such data are at the heart of Medicaid expansions and are the focus of such groups as the National Commission on the Prevention of Infant Mortality (1988). Yet it is precisely this information that may underlie physicians' sense that care of low-income and Medicaid patients increases their risk of malpractice litigation.

The committee heard many reports that poor women are believed by physicians to be more likely to sue. A key issue is whether there is evidence to warrant this suspicion. Despite the perception by many physicians that the poor sue more, the committee found that available data do not support this view.

To analysts, the statement that the poor sue more seems counterintuitive. The legal literature suggests that the low-income population generally has less access to the legal system, which would imply less frequent rates of medical malpractice litigation. Moreover, medical malpractice actions are frequently brought by attorneys on a contingent fee basis. The effects of this incentive system on access to legal services to the poor has not been well documented, but many theorists surmise that because medical malpractice awards are usually based on lost earnings, among other things, attorneys should have less financial incentive to serve poor plaintiffs.

The data currently available provide very limited information on the relation of income to medical malpractice suits. The 1973 Commission on Medical Malpractice of the Department of Health, Education, and Welfare found that greater numbers of "negative medical incidents" were associated with higher incomes (the study did not examine claims rates) (USDHEW, 1973). A study in Cook County, Illinois, in the 1970s found that black plaintiffs constituted almost 25 percent of the county's population but accounted for only 11 percent of malpractice suits (National Health Law Program, 1987). A 1986 study by Weissman and colleagues also found a negative relationship between care of minority patients and a physician's likelihood of being sued (Weisman et al., 1988).

Five studies were found that examined Medicaid and malpractice litigation specifically.

- Studies of closed claims from malpractice insurers done by the General Accounting Office (1987) and in the state of Maryland (1987) showed that Medicaid recipients brought suit in roughly the same proportion as their numbers in the population (GAO, 1987; Weisman et al., 1988). The GAO analyzed a sample of all claims: 5.8 percent were brought by Medicaid patients, who accounted for approximately 9 percent of the population. In Maryland, Medicaid recipients accounted for about 13 percent of obstetrics-gynecology claims between 1977 and 1985. In 1986, Medicaid recipients constituted about 19 percent of obstetrical admissions to Maryland hospitals. The GAO study also found that Medicaid recipients received lower settlements. Average expected payout for a Medicaid plaintiff was about $52,000, and the average for the privately insured was about $250,000.

- Two surveys of providers did find higher rates of litigation among Medicaid patients. Respondents in the 1986 Washington survey of physicians said that 26 percent of their reported malpractice suits had been initiated by Medicaid recipients, whereas Medicaid patients accounted for only 17.6 percent of their practice (University of Washington, 1986). ACOG recently reported on a nationwide survey of hospitals' malpractice claims in 1982 (ACOG, 1988). The hospitals reported that Medicaid patients represented 17.1 percent of deliveries but initiated 24.8 percent of malpractice claims. (This finding was not statistically significant.)
- In Danzon's studies on the effectiveness of tort reforms no relationship was found between the unemployment rate in a state and frequency of malpractice claims (Danzon, 1982, 1986). Neither Danzon nor Sloan found a relationship between medical malpractice claims and state per capita income (Danzon, 1982, 1986; Sloan, 1985).

Professional Liability Concerns and the Reduction of Care

Every study identified by the committee that examined the relationship of professional liability concerns to participation in Medicaid found that physicians report reducing their Medicaid caseloads, at least in part, because of professional liability concerns. Although the committee concluded that the causal relationships between professional liability issues, changes in obstetrical practice, and access to care for low-income women cannot be precisely documented, the mere perception among physicians that low-income women pose professional liability problems constitutes a barrier to care.

PROFESSIONAL LIABILITY AND OBSTETRICAL CARE IN COMMUNITY AND MIGRANT HEALTH CENTERS

Because health centers are a vital source of obstetrical care for low-income women, the committee decided early in its deliberations to commission a survey of the effects of medical professional liability on the delivery of care in these centers. A questionnaire was sent to a random sample of 208 Community and Migrant Health Center directors during April and May 1988. The response rate to this survey was low (25 percent) and was unevenly distributed. The methodology of this study and the sampling techniques used, as well as a full report of the results, are presented in detail in the companion volume of this report (Hughes et al., 1989).

Despite the relatively low response rate, the results of this survey are revealing. The vast majority of health centers reported that professional liability concerns either directly or indirectly affected the provision of maternity care. Sixty-seven percent of the respondents indicated that professional liability concerns affected their ability to furnish obstetrical services or the scope of services they could offer. Only 33 percent reported that they were unaffected (Tables 4.3 and 4.4).

It should be noted that there appears to be little direct relationship between the rapid escalation of professional liability insurance premium costs and the centers' malpractice claims profiles. Only eight (14 percent) of the centers in the study had ever had a claim filed against

TABLE 4.3 Malpractice Problems, by Region, 1987

	Respondents (No.)		
Public Health Service Region	Total	Malpractice Posed Problems	Malpractice Did Not Pose Problems
I (Me., Vt., N.H., Mass., Conn., R.I.)	5	4	1
II (N.Y., N.J.)[a]	3	0	3
III (Pa., Va., W.Va., Md., Del., D.C.)	4	3	1
IV (Ky., Tenn., N.C., Miss., Ala., Ga., S.C., Fla.)	17	12	5
V (Minn., Wis., Mich., Ill., Ind., Ohio)	6	5	1
VI (N.M., Tex., Okla., Ark., La.)	9	4	5
VII (Neb., Iowa, Kans., Mo.)	2	1	1
VIII (Mont., N.D., S.D., Wyo., Utah, Colo.)	3	3	0
IX (Calif., Nev., Ariz., Hawaii)[b]	6	5	1
X (Wash., Ore., Idaho, Alaska)	1	0	1
Unknown	2	2	0
Total	58	39	19

[a] Excludes Puerto Rico and the U.S. Virgin Islands.

[b] Excludes Guam and American Samoa.

SOURCE: Hughes, D., S. Rosenbaum, D. Smith, and C. Fader. 1989. In Medical Professional Liability and the Delivery of Obstetrical Care: Vol. II, An Interdisciplinary Review. Washington, D.C.: National Academy Press.

TABLE 4.4 Adverse Effects of Malpractice Costs, 1988

Effect	Respondents (*N* = 58) No.	%
Limited number of physicians under contract	19	33
Hampered recruitment and retention of physicians	25	43
Limited number of physicians hired	26	45
Reduced number of maternity patients seen	26	45

SOURCE: Hughes, D., S. Rosenbaum, D. Smith, and C. Fader. 1989. In Medical Professional Liability and the Delivery of Obstetrical Care: Vol. II, An Interdisciplinary Review. Washington, D.C.: National Academy Press.

them. Although centers with more claims might not have responded to the survey, other studies confirm that physicians practicing in health centers have relatively low (16 percent) claims profiles (National Association of Community Health Centers, 1986).

The Department of Health and Human Services estimates that in fiscal year 1989 approximately $50 million of the $446 million health center appropriation will be spent on medical professional liability insurance coverage for staff (unpublished data, Provider Profile 1988, Bureau of Community Health, Delivery, and Assistance, USDHHS). Much of this cost will be attributable to obstetrical activities. Thus, the centers' $30 million professional liability insurance expenditure represents 7 percent of their total budget.

Professional liability concerns affected health centers in two major ways: (1) by reducing their capacity to furnish or purchase maternity care and (2) by forcing some of them, as a result of certain insurance underwriting practices, to furnish care that might ultimately place them at greater risk of malpractice liability. The net effect was to curtail access to obstetrical care for low-income women and, in some areas, to force centers to make practice decisions based on the requirements of insurance carriers rather than standards of medical practice.

Problems Recruiting Providers

Particularly conspicuous were the recruitment problems caused by professional liability concerns. The rising cost of medical malpractice insurance has cut deeply into the resources available for compensating providers. Many centers are unable to offer all aspects of perinatal care and are unable to put together a financial package adequate to retain staff once recruited. Twenty-four percent of the 52 centers that furnish maternity care reported that the high cost of medical malpractice insurance limited their ability to recruit and retain providers. Some centers stated that the premium rates demanded for obstetrical providers were simply unaffordable. For other centers, high medical professional liability insurance costs cut so deeply into their total compensation package that they could not offer competitive salaries and benefits.

Problems with Access

The most profound effect of professional liability concerns revealed through the survey was the impact on access to maternity care. Forty-three percent of the centers surveyed indicated that they were forced to "turn patients away" because they were understaffed and unable to recruit or contract with enough maternity care providers. Either they could not afford the additional costs associated with treating these patients or they could find no contract providers willing to affiliate with them. Most of these centers were able to serve some of the patients who sought care but were forced to deny care to others (Table 4.5).

Centers indicated that patients who could not be served were generally given suggestions about where else they might obtain care. Some

TABLE 4.5 Maternity Patients Not Being Served or Referred, 1987

	Respondents	
Center's Action	No.	%
Some prenatal patients turned away	17	29
All prenatal patients turned away	3[a]	5
Patients not provided or referred elsewhere for delivery services	5	9
Able to serve all patients	33	57
Total	58	100

[a] In all, six centers reported furnishing no obstetrical care. Included here are only those centers that provide no obstetrical care and appeared to have no established referral system for patients they could not serve.

SOURCE: Hughes, D., S. Rosenbaum, D. Smith, and C. Fader. 1989. In Medical Professional Liability and the Delivery of Obstetrical Care: Vol. II, An Interdisciplinary Review. Washington, D.C.: National Academy Press.

centers were unable to establish even informal referral arrangements with other providers, however, either because private providers would not take the patients or because there were no alternative providers at all. One center indicated that there were no community doctors in the area who would accept Medicaid reimbursement. Another reported that patients with insurance were sent to the nearest obstetrician, 45 miles away; those without insurance were sent to the university hospital, 65 miles away.

Six responding centers were unable to provide care to any pregnant patient because they could neither provide care on site nor contract with other providers. (Three of these centers used informal referral networks to suggest where pregnant patients might go but had no formal contractual system; the remaining three indicated that no such networks existed.) Of these six centers, five cited the high cost of providing obstetrical care, including rising medical malpractice insurance premiums, as the major reason for not offering maternity care. One center put it bluntly: "We are unable to provide on-site or contract off-site prenatal care and delivery services because of the high cost of medical malpractice insurance. As a result, the center is offering none of these services."

Five of the 52 centers furnishing maternity care reported that they were forced to discontinue care of women at the time of delivery because the family doctors or midwives on staff could not perform deliveries and could not identify community physicians to whom they could refer patients, either formally or informally. The patients were virtually on their own in locating delivery care. One center reported that it was forced to send all patients—nearly 700 a year—to the local hospital emergency room for deliveries. Another referred patients to the county hospital for deliveries.

Some centers reported that their own providers were prohibited from delivering babies, either because their malpractice insurance policies prohibited it or because local hospitals allowed only obstetricians to perform deliveries. In turn, fear of malpractice suits and the rising costs of insurance were cited as the primary reasons for the community obstetricians' unwillingness to contract with the centers or to accept referrals. One center wrote, "Only one in three obstetricians in the community does obstetrics (at all) because of the high cost of malpractice. And family doctors do not do obstetrics because of lack of obstetrical backup."

Reduced Quality of Care and Increased Risk of Suit

The survey revealed that, although the most important consequence of the high cost of professional liability insurance for obstetrical providers was to reduce the availability of services at health centers, it also had the ironic, and certainly unexpected, effect of reducing the quality of care centers furnished and, in some cases, of increasing their potential exposure to malpractice claims. This has occurred in two ways. First, family doctors and nurse-midwives were forced into the medically unsound practice of discontinuing care for patients at the time of delivery because they were unable to obtain community backup or referral for them.

Second, some centers reported that they were forced to replace experienced doctors with new graduates because of the escalating malpractice premium costs for experienced physicians. Insurers base this practice on the theory of "accumulated exposure," that is, that the risk of being sued increases over time. Thus, patients in health centers are deprived of the most experienced physicians as a means of avoiding higher malpractice insurance costs.

As a matter of economy, most health centers with maternity care providers on staff employ family doctors rather than obstetricians. One-third of the centers reported that they were staffed with family practitioners who furnished prenatal care. However, as indicated above, a number of centers also reported that the vast majority of these physicians were not permitted to deliver babies because of insurance or hospital credentialing limitations. Family practice staff delivered babies in only 6 percent of the centers.

When family doctors and other providers have strong referral networks for delivery, this arrangement is not necessarily troublesome. As noted, however, many centers in the survey reported that they were unable to develop backup or referral arrangements, and the family doctors and nurse-midwives were placed in the untenable position of having to choose whether to drop a patient at the time of delivery (and hope that she could make it to the emergency room), deliver a baby without medical malpractice coverage, or cease furnishing prenatal care altogether. Terminating care of a patient at the time of delivery not only places the patient in jeopardy and the physician into an ethical and liability dilemma, it also creates potential liability for the physician who ultimately performs the delivery with no prior knowledge of the patient.

Prohibitive Insurance Costs

The results of the survey suggest that professional liability concerns have reduced the ability of nearly every center furnishing obstetrical care to provide or purchase necessary health services for pregnant women. Many centers with adequate staff have been forced to curtail or eliminate services because insurers refuse to provide delivery coverage except at exorbitant costs that clinics cannot afford. Still other health centers have seen their referral arrangements to specialists disintegrate as more and more obstetricians either leave the practice of obstetrics altogether or else refuse to treat what they perceive to be high-risk patients.

CONCLUSION

The committee examined the available data relating to the question of whether medical professional liability concerns are causing physicians to reduce obstetrical care to low-income women, including the commissioned survey of Community and Migrant Health Centers. The data are often imperfect, and much of the relevant evidence is indirect. The committee is nonetheless persuaded that the effects of professional liability concerns in obstetrics are being disproportionately experienced by poor women and women whose obstetrical care is financed by Medicaid or provided by Community and Migrant Health Centers.

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5

The Effects of Medical Professional Liability on the Practice of Obstetrics

The committee believed from the outset that, in addition to examining the implications of medical professional liability concerns on access to care, its mission was to study the effects of these concerns on the day-to-day practice of obstetrics. Are professional liability concerns altering the kinds and numbers of procedures performed? What is the relationship of the cesarean section rate to professional liability concerns? Is electronic fetal monitoring clearly an effective technology, or has its use been promoted primarily by professional liability concerns? Are professional liability concerns affecting the training of obstetrical residents? Finally, what has been the effect of medical professional liability concerns on the physician-patient relationship, and what are the implications of these changes?

CHANGES IN PRACTICE PATTERNS OF INDIVIDUAL PHYSICIANS

There is no question that physicians themselves firmly believe that the current medical liability climate has prompted them to change the way in which they practice obstetrics. According to a 1985 survey by the American College of Obstetricians and Gynecologists (ACOG), 41 percent of obstetricians surveyed reported that they have altered the way in which they practice obstetrics as a result of the risk of medical liability (ACOG, 1985). Among the practice changes reported are (1) increased use of testing and other diagnostic and monitoring procedures, (2) increased use of written informed consent, (3) increased frequency of consultations with other physicians, (4) increased attempts to provide written or taped information to patients, and (5) more frequent explanation of potential risks of a recommended procedure (ACOG, 1985). The committee believes that, for the most part, these are examples of how the current liability climate has led to better patient care and has enhanced the physician-patient relationship.

Family physicians also report that the professional liability climate is altering the way in which they practice obstetrics. In 1987, 8.9 percent of those family physicians who currently include or have ever included obstetrics in their practices reported that they have either decreased the number or the type of obstetrical procedures they perform or discontinued obstetrics altogether because of the cost or availability of professional liability insurance (AAFP, 1987) (see Table 5.1).

In 1987 a full 27 percent of obstetrician-gynecologists respondents nationwide reported that professional liability concerns have caused them to decrease the amount of high-risk obstetrical care they are providing (ACOG, 1988). This compares with 18 percent in 1983 and 23 percent in 1985 (ACOG, 1983, 1985). It is difficult to assess the implications of this development. On the one hand, the more frequent referral of high-risk patients to obstetricians who specialize in their care may very well lead to better patient care. Unfortunately, there are no data that assess whether high-risk patients who are being avoided by obstetrician-gynecologists are in fact receiving such specialized care. Many high-risk patients are low-income and minority women who lack ready access to health care in general and to prenatal care in particular. The committee is concerned that these reports of curtailment of high-risk

TABLE 5.1 Changes in Obstetrical Practice by Family and General Practitioners

	Family, General Practitioners	
Change	No.	%
Decreased obstetrics because of liability insurance problem	803	8.9
Discontinued obstetrics because of liability insurance problem	1,672	18.6
Have not curtailed obstetrics	3,244	36.1
Discontinued obstetrics for other reasons	3,221	35.8
No response	46	0.5
Total	8,986	100.0

SOURCE: American Academy of Family Physicians, 1987. Family Physicians and Obstetrics: A Professional Liability Study. Kansas City, Mo.

care may be a signal that poor and minority women are not receiving the care they need.

Another trend noticed by the committee is the movement away from solo practice by obstetricians, a trend shared to some extent by the rest of the medical profession. ACOG data reveal that significantly fewer respondents were in solo practice in 1987 (34 percent) than in 1985 (45.2 percent) (ACOG, 1985, 1988). The committee believes that this trend is caused by a variety of economic and social factors.

THE RISING CESAREAN SECTION RATE

Some 20 years ago, the rate of cesarean sections in the United States was approximately 5 percent; in some areas, it is now 25 percent (P. J. Placek, personal communication, 1988). Some observers have speculated that it could rise to 40 or 50 percent in the next 20 years (Placek et al., 1987).

Because of the many allegations that physicians are performing more cesarean sections in response to the threat of lawsuits, the committee decided to investigate the data relating to cesarean sections. It concluded that professional liability concerns are one of many variables affecting the rate. The most commonly cited reasons for the increase in cesarean sections are repeat procedures for women who have had an earlier section or sections (Taffel et al., 1987) and delayed childbearing (NIH, 1981; Placek et al., 1987). There is also an indication that women of higher socioeconomic status and women with a medical family background are more likely to have a cesarean section than low-income women. One study found that American women physicians have the highest rate of all groups (Dugowson and Holland, 1987).

Another significant contributing factor is the widespread use of electronic fetal monitoring (EFM). Sampling of fetal scalp blood to ascertain metabolic status of the infant, which improves the predictive value of monitoring, may not, in the view of many experts, provide an effective screen for cesarean section, particularly in low-risk cases (MacDonald et al., 1985; Leveno et al., 1986). Overall, it has been estimated that 48 percent of the increase in cesarean sections is due to repeat cesarean sections and 16 percent to fetal distress (Taffel et al., 1987).

Additional factors contributing to the increase in cesarean sections include abandonment of vaginal breech deliveries; increased use of cesarean deliveries for infants with very low birthweights and, for multiple pregnancies, decreased use of midforceps deliveries; and the medical-legal environment (Sachs, 1989). Other factors have been associated with the rising cesarean section rate, but it is not clear whether they helped cause it: namely, lack of prenatal care, hospital size and ownership, patient's insurance coverage [patients in health maintenance organizations (HMOs) appear to have lower rates], and socioeconomic status.

There are no data documenting the number of cesarean sections that are purely defensive, that is, performed solely in response to fears of litigation; however, there is a great deal of anecdotal data to suggest that this is a widespread phenomenon. Failure to perform a cesarean section in the presence of an abnormal fetal tracing can be a major factor behind the initiation of a medical malpractice claim (Sachs, 1989). Sachs has reported that 80 percent of obstetrical malpractice claims in Massachusetts were associated with the charge of failure to perform a cesarean section. The committee heard numerous reports that widespread use of fetal monitoring has contributed to the increase in the cesarean rate. Although the studies comparing maternal mortality from vaginal and cesarean deliveries are in conflict (NICHHD, 1979; Sachs, 1989), all studies show that cesarean section delivery does increase maternal morbidity, including increased incidence of infection, longer hospitalization, problems of bonding with the infant, as well as rarer complications, including hysterectomy and bowel trauma.

Electronic Fetal Monitoring

The objective of obstetrical care is the birth of a normal baby to a healthy mother. To help achieve that goal, it has been customary for many years to monitor the fetus during labor to determine whether it is in danger. If monitoring detects that the fetus is in distress, the obstetrician may be able to intercede medically or surgically, alleviate the distressing condition, and ensure the birth of a normal baby. Since so much has been achieved through technology, it is not surprising that many physicians and patients believe that use of one of the most modern and widespread methods of monitoring, EFM, will prevent many abnormal births.

The desire for and expectation of a normal baby are overwhelming, and the birth of a baby with brain damage, one of the more common and most disturbing forms of abnormality, is devastating. When babies with brain damage are born, the persons affected may assume that the obstetrician did not use EFM appropriately and that medical malpractice occurred. Often redress is sought through the courts. Indeed, the current medical liability crisis is epitomized by the frequency with which obstetricians are being sued because the birth of a baby with brain damage is alleged to be the result of malpractice.

Brain damage of the infant accounted for 31 percent of the claims made against obstetricians in 1987 (ACOG, 1988). Payments for claims related to birth injuries constituted nearly 60 percent of all medical malpractice indemnity payments in California in 1986 (Medical Underwriters of California, 1987). Improper use of EFM is implicated in significant numbers of these claims. In a recent review by the Harvard Risk Management Foundation of 54 open and closed obstetrics-related cases managed over a 10-year period, nearly two-thirds of the losses involved alleged problems with fetal monitoring or related documentation (Risk Management Foundation, 1986).

The committee believed it important to examine the role of EFM in obstetrical care, the history of its development and acceptance as an intervention, the evidence related to its efficacy, and how professional liability concerns have influenced its use. The committee's findings, reported below, demonstrate that data do not support the effectiveness of EFM in reducing neonatal mortality and morbidity. The most recent epidemiological data available to the committee suggest that the majority of cases of brain damage are not due to delivery events; that the frequency of most forms of brain damage, such as cerebral palsy, have not decreased as a result of the widespread use of EFM; and that the causes of most cerebral palsy and mental retardation are not known.

History

A detailed history of the development of EFM is given by Steven Thacker in the companion volume of this report (Thacker, 1989). Below is a brief summary.

The essentials of EFM devices were developed in 1972, and by the end of that year there were 1,000 systems in place in the United States. Initially, EFM was thought to be a useful means of detecting asphyxia. It was believed that its use would lead to an amelioration of asphyxia and the prevention of birth injury, because it would permit the obstetrician to deliver the baby surgically, if necessary. A survey in 1976 revealed that 77 percent of physicians believed that all labors should be electronically monitored (Heldford et al., 1976). In facilities with monitors the monitors were used in 86 to 100 percent of deliveries (Thacker, 1989). A study of upstate New York birth records indicated that 4[illegible] percent of all 1978 live births were accompanied by some form of EFM (Thacker, 1989). By 1986, 75 percent of New York State live births were being monitored electronically (D. Mayack, personal communication, 1988). The current national natality survey includes detailed questions about EFM; results will be reported in 1990 (Thacker, 1989).

As a tool, EFM was easy to learn, imposed little change on practice style, replaced a seemingly imperfect method, and appeared at a time when new technologies were being readily accepted in many sectors of society. EFM had strong advocates in the national and international obstetrical communities. Many leaders of the academic obstetrical community were at the forefront of EFM use, and they communicated their enthusiasm in respected medical journals and at professional meetings. The use of EFM spread rapidly, both in academic medical centers and among individual practitioners.

Despite the widespread use of EFM in the early 1970s, the results of the first U.S. randomized clinical trials, which demonstrated little or no benefit from EFM, were not published until 1976 and 1979 (Banta and Thacker, 1979a, 1979b). In 1979, some seven years after EFM became a widespread technology, a National Institutes of Health (NIH) consensus panel concluded that it was potentially beneficial in all pregnancies, should be strongly considered in high-risk pregnancies, and that intermittent auscultation was equally acceptable for use in all pregnancies (NICHHD, 1979).

Regulatory Failure

The Food and Drug Administration (FDA) seeks to ensure the safety and efficacy of drugs and certain medical devices through licensing, but many medical technologies, such as EFM, that were in use prior to the enactment of the Medical Devices Act of 1976 have never been formally evaluated by the FDA [see the federal Food, Drug, and Cosmetic Act, 21 U.S.C.A. §301 et seq. (1988)]. New procedures and treatments to be tested in experiments are regulated by the Department of Health and Human Services if the experimenting institution is funded by the federal government in whole or in part. These regulations require the institution sponsoring the research to establish Institutional Review Boards to evaluate research on new procedures and treatments [45 C.F.R. §46.101(a) (1985)].

Clinical innovation falls between standard practice and experimentation. Although many sectors of the health care enterprise have an interest in the safety, effectiveness, cost-effectiveness, and social, ethical, and legal impacts of new and innovative health care technologies, evaluation of these concerns is ad hoc and irregular. Many commentators have worried about the absence of controls in innovative procedures and technologies (Cowan and Bertsch, 1984). Recently, the Institute of Medicine's Council on Health Care Technology published a reference guide to organizations, assessments, and information resources in medical technology, the *Medical Technology Assessment Directory* (IOM, 1988).

The committee found that the organizations and institutions that were in a position to evaluate EFM failed to do so before its use became widespread. The NIH and industry provided generous financial support to the developers of modern EFM but did not provide support for the clinical trials to evaluate it. Nor has the FDA's Medical Devices Program ever assessed the efficacy of EFM. Third-party insurers, such as Blue Cross and Medicaid, which are in a position to evaluate new procedures, failed to question the efficacy of EFM before setting their reimbursement rates for the procedure.

Results of Randomized Clinical Trials

Randomized clinical trials (RCTs), all of which were performed after EFM was widely accepted, indicate that there is little or no benefit from the use of EFM. To date, there have been nine such trials, conducted in Australia, Denmark, Ireland, Scotland, and the United States (see Thacker, 1989, for a detailed comparative analysis). Not a single RCT has shown a statistically significant decrease in the rate of prenatal death, intrapartum stillbirth, neonatal death, one-minute Apgar score of less than 7, one-minute Apgar score of less than 4, or frequency of neonatal intensive care unit admissions as a result of the use of EFM. These studies suggest that EFM has simply not done what its proponents argued it would do: it has not reduced neonatal morbidity and death, and, as discussed below, it has not reduced the frequency of developmental disability.

Analysis of the pooled data of all the RCTs did show that the rate of neonatal seizures was decreased by EFM use. However, a follow-up study of 39 infants born in Dublin who had seizures in the neonatal period showed no neurological difference at one year of age between infants monitored electronically and those monitored by auscultation (Thacker, 1989). The dilemma posed by these findings is compounded by the finding that EFM had no measurable benefit for highly restricted groups of high-risk deliveries (Leveno et al., 1986; Luthy et al., 1987).

Effect of EFM on the Frequency of Cerebral Palsy

Cerebral palsy is one of the more common forms of brain damage of infants. It is a group of diverse, nonprogressive syndromes in which the brain is affected in such a way that motor function is impaired; quadriplegia and hemiparesis are characteristic manifestations; and mental retardation, seizures, and dystonia may be present. Until recently, cerebral palsy was thought to be linked to abnormal parturition, difficult labor, premature birth, and hypoxia or asphyxia of the infant.

The committee evaluated more recent data that cast serious doubt on the correlation between presumed hypoxia and later cerebral palsy. In a series of reports published during the past decade, Karin Nelson and Jonas Ellenberg have analyzed data concerning cerebral palsy obtained during the National Collaborative Perinatal Project of the National Institute of Neurological and Communicative Disorders and Stroke (Nelson and Ellenberg, 1979, 1981, 1984, 1985, 1986, 1987). Approximately 54,000 women participated in this prospective study, which was carried out between 1959 and 1966 in 12 teaching hospitals in the United States. Detailed histories and laboratory studies of the mothers and their babies were obtained.

Pediatric and neurological examinations were done at 1 and 7 years of age. The outcome at 7 years was known for 45,559 children born as singleton infants of 51,285 pregnancies. In a univariate analysis of risks associated with cerebral palsy, Nelson and Ellenberg found that the characteristics associated with the highest relative risk were newborn seizures, respiratory distress syndrome, aspiration, being in an incubator for three or more days, and having an Apgar score of 0 to 3 at five minutes (listed in decreasing order) (Nelson and Ellenberg, 1985). However, there were almost identical rates of risk factors in children without cerebral palsy. None of these factors accounted for a statistically significant percentage of cerebral palsy.

Subsequent multivariate analysis found no factor arising in labor or delivery to be a major predictor of cerebral palsy. Of the cases studied, 69 percent did not have even one clinical marker of asphyxia. Of the 21 percent that did, 58 percent had an alternative explanation for the cerebral palsy (congenital malformations, birthweight of less than 2,500 grams, microcephaly, or some other). The only important risk factor for cerebral palsy in a baby weighing more than 2,500 grams at birth was severe fetal bradycardia; less than 2 percent of the children with cerebral palsy had that risk factor. The rate of false positives among high-risk predictors was 97 percent, except in the case of babies weighing more than 2,500 grams, where the false positive rate was 99 percent (Thacker, 1989).

Nelson and Ellenberg conclude "We do not know the cause or causes of most cerebral palsy . . . no one cause contributed much to the outcome . . . no foreseeable single intervention is likely to prevent a large proportion of cerebral palsy . . . results suggest a relatively small role for factors of labor and delivery in accounting for cerebral palsy. . . . " (1986, p. 86). Consistent with these conclusions was a recent NIH review of the matter, which also concluded that the cause of the majority of cases of cerebral palsy is unknown (Nelson and Ellenberg, 1979).

Electronic Fetal Monitoring, Cerebral Palsy, and Medical Malpractice

Although the data relating EFM use to medical liability concerns are limited, it appears that the initial acceptance of EFM technology was fueled in part by such concerns. Moreover, the current professional liability climate supports the continued use of EFM, despite overwhelming evidence that it does not improve neonatal mortality and morbidity rates.

Data from ACOG suggest that 46 percent of obstetrical claims involved EFM (1988). A recent study conducted by the Risk Management Foundation found that close to two-thirds of closed claims were related to EFM and documentation (Risk Management Foundation, 1986). The legal literature suggests that EFM has become the accepted standard of care in many jurisdictions. The allegation of "failure to monitor" is commonplace in plaintiffs' medical malpractice complaints. Hospital attorneys routinely advise obstetricians both to use EFM and to save the tracing tape in case a claim is made (Schifrin et al., 1985).

The committee heard numerous reports that cerebral palsy cases are frequently litigated and that either failure to respond to the EFM tracings or failure to monitor was a frequent allegation in them. The insurance data reviewed by the committee confirmed that indemnity payments related to claims for neurologically impaired children comprise more than 27 percent of all indemnity payments paid (GAO, 1986; Medical Underwriters of California, 1987). One malpractice insurer, Physicians Insurance Association of America, calculated that cerebral palsy is the second highest diagnosis (following breast cancer) in total indemnity in obstetrics and gynecology (Medical Underwriters of California, 1987), with payments averaging hundreds of thousands of dollars.

Although the causes of neurological impairment in infants are largely unknown, birth-related events do not appear to be strongly implicated. It is estimated that there is a 5 to 10 percent incidence of neurological handicaps in the entire population. Not all these people require medical, educational, or social services, but a substantial number do. These needs may be part of the impetus behind the malpractice claims.

Conclusion

EFM, initially developed as a means of detecting fetal asphyxia and preventing its destructive effects, has continued to be used in most deliveries, despite the fact that for almost a decade randomized clinical trials have failed to demonstrate its efficacy. The incidence of cerebral palsy, still popularly and erroneously believed by many to be the result of fetal asphyxia, has not been reduced by EFM. The available evidence suggests that professional liability concerns have contributed to the continued use of EFM.

Not only is there no demonstrated benefit of EFM, it is costly. The frequency of operative deliveries, primarily cesarean sections, has been linked statistically to use of EFM. It has been estimated that the monetary cost of EFM, including the cost of cesarean sections associated with its use, may exceed $750 million annually. In addition, there are the costs attending patient morbidity induced by surgery.

PRACTICE PATTERNS IN DEPARTMENTS OF OBSTETRICS

Noting individual practitioners' reports of practice changes brought about by liability concerns, the committee inquired early in its deliberations whether the perceived risk of malpractice litigation was also causing changes at the institutional level, that is, in departments of obstetrics at university hospitals and academic medical centers. Since there were no available data to answer this question, the committee undertook an informal letter survey of the 132 members of the Association of Professors of Gynecology and Obstetrics who are heads of obstetrics departments. Its purpose was to make a preliminary assessment of whether departments of obstetrics at academic medical centers were, in fact, making changes in the patterns of the delivery of care at an institutional level that had implications for access to and delivery of care.

The committee received letters containing both data and opinions about how the current medical liability climate has affected the practice of obstetrics in university hospitals and academic medical centers. Even though all respondents noted a change in practice climate and greater awareness of legal issues, some department heads reported no changes in institutional policy as a result. The responses of many, however, made it clear that both the rising cost of medical malpractice insurance and the overall climate engendered by medical liability issues have brought about changes in the practice and procedures in departments of obstetrics, the organization of academic obstetrical departments, the teaching of residents, and in the organization of obstetrical practice generally. In addition, a number of respondents noted impediments to access brought about by the problem of obstetrical liability.

Reported Changes in Practice

The most commonly reported change in practice was the increased frequency of cesarean sections. Most respondents were disturbed by this trend but felt unable to stem it because of the risk of malpractice suit. As one department head put it:

> For many years, a standard part of my teaching to medical students and residents had been to perform only medically and obstetrically indicated cesarean sections, uninfluenced by other considerations such as inconvenience, time of the day or night, interference with office hours, monetary gain, or threat of malpractice. I can no longer in good conscience continue to teach the latter principle when the practical results may be a multimillion-dollar suit that can ruin a career and a lifetime of study and service.

Because the survey letter specifically mentioned as an example that at least one academic obstetrical department had implemented a policy of delivering all breech fetuses by cesarean section, many respondents addressed this issue, reporting that they, likewise, had implemented such a policy.

Other practice changes reportedly brought about by the professional liability climate included avoidance of midforceps delivery, decrease in the frequency of outlet forceps deliveries, increased antepartum testing, increased documentation, and increased use of consultation and referrals for "high-risk" and "potential high-risk patients," often solely for the purpose of avoiding litigation (see Table 5.2). Another commonly cited response was increased use of continuous EFM during labor, even for low-risk patients:

> The sole purpose of such surveillance may be only to provide a heartbeat-to-heartbeat credible objective record for defense purposes in the event of future litigation. Reliance on these methods of fetal surveillance by attending physicians deemphasizes by role modeling example the appropriateness of bedside clinical evaluation and clinical judgment.

Many respondents acknowledged that some changes motivated by professional liability have led to better patient care. In particular, many respondents commented that better documentation and increased physician-patient discussion have undoubtedly enhanced patient care.

Other beneficial changes included an increase in the use of consultation for high-risk cases and the requirement that faculty remain in the hospital, available to residents, 24 hours a day. An increase in regionalization of obstetrical care was reported, with increased use of computer networks for evaluating antepartum data and fetal heart rate tracings; these were believed to be positive changes as well. Respondents reported increased reliance on standard protocols for obstetrical management, which may or may not improve obstetrical care. Finally, a formal procedure for certifying residents was initiated in some programs, including delineation of their specific operative privileges and experience.

TABLE 5.2 Changes Reported in the Committee's Survey, March 1988

- Changes in Practice
  - Liberalized criteria for cesarean sections
  - Decreased frequency of vaginal breech deliveries
  - Elimination of vaginal breech deliveries
  - Delivery of all twins by cesarean section
  - Avoidance of midforceps deliveries
  - Marked decrease in frequency of outlet forceps deliveries
  - Increased antepartum testing
  - Obstetricians no longer provide obstetrical anesthesia
  - Increased use of electronic fetal monitoring
  - Universal use of electronic fetal monitoring
  - Increased use of ultrasound
  - Increased use of alphafetoprotein testing
  - Increased use of amniocentesis
  - Increased referrals to tertiary care centers for level-one ultrasound examinations
  - Increased documentation
  - Increased use of consultation
  - 24-hour faculty in-house call
  - Enhanced quality assurance and risk management programs
- Changes in Teaching
  - Including medical malpractice issues in the curriculum
  - Revised rules and regulations for residents
  - Reduced responsibility for residents
  - Closed mortality and morbidity conferences
  - Diminished participation of part-time and some full-time faculty in education of residents
  - Generally diminished participation of medical students in patient care
  - Residents being named as codefendents in malpractice cases
- Changes in Practice at the Departmental Level
  - Increased establishment of regional computer networks for integrating antepartum and intrapartum data from obstetrical patients
  - Increased establishment of regional linkups of fetal heart monitors for fetal assessment
  - Development of and reliance on obstetrical guidelines or protocols to standardize care
- Changes in Careers in Obstetrics
  - Change in the type of medical students entering the profession
  - Decrease in the number of students entering obstetrics
  - Decrease in the number of students entering solo practice
  - Diminished professional mobility due to necessity of purchasing tail coverage for occurrence-based malpractice policies
  - Cost of malpractice insurance influencing faculty hiring in academic medical centers
- Access Issues
  - Avoidance of high-risk patients
  - Diminished care of uninsured patients
  - More women presenting at hospitals for delivery without adequate prenatal care
  - Routinely obtaining cord-blood gases immediately after birth for all high-risk newborns

Implications for Training

Many respondents indicated that the current professional liability climate in obstetrics is adversely affecting the teaching and training of obstetrical residents. Many also mentioned the increasingly common phenomenon of residents being named as codefendents in malpractice cases. Moreover, because of the continually increasing cost of medical malpractice insurance, some respondents reported a diminished participation by part-time obstetrical faculty in the education of residents. There was considerable concern that the current medical liability climate is preventing obstetrical residents from assuming sufficient responsibility to meet their educational needs. As one respondent commented:

> The present academic atmosphere is such that residents have to be virtually watched in every single activity that they do. I am not convinced in all cases that there is any advantage to such careful supervision, although, admittedly, in some cases there is. My concern is that our "baby birds" will never be pushed from the nest until they go into private practice, since we give them such little latitude.

Some expressed concern that this attitude of secrecy sets an example for the residents and other health professionals that they will carry with them into practice.

Other changes included revisions of rules and regulations to restrict further the activities in which residents can engage and to reduce the participation of medical students in obstetrical training. One respondent reported that, as a response to the current professional liability climate, "We have closed our Morbidity and Mortality Teaching Conference . . . to students, nurses, and other ancillary personnel [the conference is limited to residents] who may not understand or may misinterpret the frank criticism of management of specific cases." Thus, it appears that, in the view of many respondents, the medical liability climate is also undermining the teaching and training of medical students.

Effects on Careers in Obstetrics

Several respondents believed that there had been a decrease in the number of graduating residents entering independent practice, because the cost of medical malpractice insurance for an independent practitioner has contributed to making start-up costs prohibitive. In addition, several respondents noted that as a result of the professional liability problem it has become more difficult for obstetricians to change jobs.

Specifically, respondents believed that the necessity of purchasing "tail" coverage for claims-made medical malpractice policies has made the cost of hiring new obstetricians prohibitive. As one respondent stated the problem, "Because of the tail insurance problem, one would wonder if this almost becomes a restraint of trade when it costs an individual obstetrician-gynecologist between $100,000 and $250,000 simply to move and change locations." This problem is also impeding the hiring of physicians by obstetrical departments in academic medical centers. Several respondents noted that the cost of insuring part-time faculty was not significantly less, if less at all, than the cost of insuring full-time faculty.

With regard to whether the medical malpractice climate is affecting students' choice of obstetrics as a specialty, the committee received contradictory responses. Several respondents felt that their medical students had been deterred from entering obstetrics. On the other hand, many respondents reported no change in the number of students choosing to specialize in obstetrics. Recent statistics failed to confirm a major decline in those choosing obstetrical training, although a decrease from 1984 to 1987, from 8.7 to 6.7 percent of graduating medical seniors, was noted in an Association of American Medical Colleges survey (AAMC, 1987). Many respondents agreed that the great increase in the proportion of women entering obstetrics and gynecology (now almost 50 percent of residents) has helped avoid what otherwise would have been a major drop in the number of medical students choosing the specialty.

Effects on Access to Care

Although the committee's letter did not query respondents specifically about their perception of the effect of the liability problem on access issues, a number of respondents noted the increased influx of the medically underinsured into academic medical centers. Their perception is that this influx is a result of the professional liability crisis, which is curtailing the availability of federally subsidized obstetrical services outside these hospitals:

> We are being severely pressured by the number of new, medically indigent patients requiring obstetrical care. These underfunded patients provide a heavy load, which further usurps faculty time and detracts from research, and often creates increased medicolegal risks because of the lack of continuity of care. As practitioners surrounding us have withdrawn from obstetrical practice, these individuals have few other places to go. It is the original Catch-22.

Finally, a number of respondents commented on the shrinking availability of obstetrical services in rural areas, the departure of family physicians from obstetrical practice, and the overall decrease in obstetrician-gynecologists providing obstetrical services.

IMPACT OF MEDICAL PROFESSIONAL LIABILITY ON THE PHYSICIAN-PATIENT RELATIONSHIP

The Importance of Trust

Central to any discussion of the doctor-patient relationship since the time of Greek philosophers is the importance of mutual trust. Both observation and clinical research confirm that a patient's confidence in his or her physician[1] is central to the healing process (Cassell, 1976). Indeed, research has demonstrated the importance of the placebo effect, that is, clinical benefits that are associated with medical therapy but are not ascribed to the therapy itself. The placebo effect derives from the patient's confidence in the doctor and in the therapeutic process.

In a survey of a sample of physicians who had been sued for medical malpractice in Cook County, Illinois, between 1977 and 1981, Charles, Wilbert, and Kennedy concluded that a medical malpractice suit was considered to be a serious and often devastating event in the personal and professional lives of the respondents. The results of their survey strongly indicate that the prevalence of medical malpractice litigation is perceived as undermining physicians' self-confidence and career satisfaction (Charles et al., 1985).

The committee agrees with the many reports from physicians and observers that patient-physician trust has been eroded (Relman, 1989) by the current professional liability climate. It believes that this erosion of trust is both one of the causes and one of the consequences of the medical professional liability crisis.

The most significant data available to the committee were indirect: if 70 percent of U.S obstetricians can expect to be sued at one time or another (ACOG, 1988), it is abundantly clear that medical malpractice claims are not confined to the worst practitioners or the worst health care institutions. In fact, many observers believe that the most substandard physicians are the least likely to be sued, because they serve patients who are too poor and too uneducated to file claims. Although the data relating to the litigation propensity of poor women are, as noted in Chapter 4, limited, it is clear that some of the best physicians are the most likely to attract suits.

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[1] Whenever the term "physician" or "doctor" is used in this chapter in the context of the therapeutic relationship, the reader is asked to remember that it includes the nurse-midwife and other providers.

There are many reasons that medical malpractice claims and litigation have become so frequent. The United States is one of the most litigious societies in the world; no other nation relies so heavily on the courts for resolution of disputes. Moreover, U.S. couples who have given birth to a child with medical defects often have no financial recourse but a lawsuit against their health care providers. Societies with universal social insurance schemes, such as Canada and the United Kingdom, have been able to limit this problem (King's Fund Institute and Centre for Socio-Legal Studies, 1988). The expectations that patients have of the medical system are being constantly raised by the development of more sophisticated medical technologies. It is clear that the public must be educated to understand the limits of technology and to have a realistic understanding of what modern medicine can and cannot offer. Further, physicians are no longer regarded by the American public as virtually infallible. And, finally, many believe that increasing specialization and technology have led to the provision of care for higher risk patients, who are more likely to experience a maloccurrence and more likely to sue.

Together, the data accumulated and set forth in Chapters 2 through 5 relating to the effects of the professional liability crisis on access to care and on delivery patterns indicate that the result of this breakdown in trust, and the attendant surge in medical malpractice litigation, is likely to be the further deterioration of obstetrical care in the United States.

Consequences of the Breakdown in Trust

The consequences of the disintegration of the physician-patient relationship have been costly to patients, physicians, and, ultimately, to all consumers who pay the health care bills in this nation. The committee is of the view that the decision to bring a medical malpractice claim is often influenced by a breakdown in communication between the doctor and patient, a mismatch between the physician's and the patient's expectations, or a failure of either the physician or the patient to understand the nature of the relationship.

During the course of its deliberations, the committee was repeatedly confronted by reports of physicians' negative attitudes toward their patients. The committee formed the impression that a large segment of the profession regards itself as under siege. Further, there is no question that this has affected the day-to-day interactions between physicians and patients. As Arnold Relman summarized the situation, "The warmth and the commitment and the compassion and the concern are changed" (Relman, 1989). It is clear to the committee that many physicians no longer think of themselves as Samaritans—rather, they view themselves as victims of the tort litigation system.

The committee found that in certain instances, at least from the physicians' perspective, professional liability concerns have contributed to transforming the patient-physician relationship from a therapeutic alliance into a more adversarial interaction. A physician-patient relationship based on a clear understanding of the roles and responsibilities of each and directed toward the patient's needs is more likely to be free of the suspicion and paranoia so often associated with medical malpractice claims. Because of its importance to the healing process, the committee believes that sustaining a doctor-patient relationship based on mutual trust and confidence must be at the heart of any solution to the professional liability problem.

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6

Obstetrical Malpractice Insurance

Although the committee was not able to analyze insurance issues in depth, it did believe that it was important to examine certain basic questions related to the role that medical malpractice insurance plays in the obstetrical professional liability crisis. Is medical malpractice insurance generally available to obstetrical providers? Who provides this insurance? Is it affordable? Has its affordability changed over time? What are the trends in severity and frequency of medical malpractice claims and how do they affect the market in medical malpractice insurance? Have insurers changed their underwriting practices? Have risk management activities and quality assurance programs succeeded in reducing claims? How profitable is medical malpractice insurance?

The committee examined major studies available as of August 1988. It is aware that other major studies were in progress at that time. The data that were available to the committee related to medical malpractice insurance generally; from them the committee drew inferences about obstetrics. It is possible that the data for obstetrics would vary from the general experience. The committee also reviewed major available studies of the profitability of medical malpractice insurance. In addition, it commissioned a survey of risk management activities sponsored by medical malpractice insurers. Recognizing that the committee did not examine the insurance problem in depth, this chapter reports only the committee's findings on insurance issues; it does not include recommendations. Although the committee generally approves efforts by insurers to assist providers in evaluating and limiting the risks of obstetrical care, there are not enough data available to enable the committee to evaluate responsibly the efficacy of these efforts. Moreover, insurance is regulated by insurance departments in each of the 50 states, Puerto Rico, and the District of Columbia. The regulatory climate, the market structure, and the health care delivery issues vary tremendously in each of these areas. The committee did not believe that, under these circumstances, it was feasible to make specific recommendations regarding insurer business practices.

THE STRUCTURE OF THE MARKET

Nearly all health care providers purchase professional liability insurance to protect themselves financially from malpractice claims. Under the terms of a typical malpractice insurance contract, the insurance company agrees to accept financial responsibility for payment of any claims up to a specific level of coverage during a fixed period, in return for a fee. It is the insurer's responsibility to investigate and defend any claims made against the providers under the terms of the contract.

Most physicians in private practice purchase their own medical malpractice insurance, although physicians employed by staff-model health maintenance organizations (HMOs) are frequently covered by the HMO. Physicians who are salaried staff of hospitals are likely to have their insurance purchased by the hospital. In some instances physicians may be self-insured or purchase malpractice insurance through a trust.

Hospitals, like physicians, have traditionally purchased medical malpractice insurance from commercial insurers; however, since the late 1970s large hospitals have increasingly elected to self-insure rather than buy insurance. By self-insuring, they can avoid premium taxes and other state regulations, as well as take direct responsibility for managing smaller and more predictable claims. A survey of bank trust departments in 1980 estimated that between 750 and 1,000 hospitals were self-insured at that time (Needleman and Hackbarth, 1988).

Prior to the insurance "crisis" of the mid-1970s, the majority of medical malpractice insurance was provided by commercial insurers. The withdrawal of some commercial insurers from the market and dramatic premium increases imposed by the remaining insurers prompted many state medical societies and hospital associations to establish their own programs, usually as mutual insurance companies or insurance exchanges. The largest medical society-created insurance company, the Medical Liability Mutual Insurance Company of New York, has approximately 5.8 percent of the national market and 38.3 percent of the New York State market, according to the annual compilation by A. M. Best

Co. (Stern, 1988). The largest hospital association-owned company, the Pennsylvania Hospital Insurance Company, had a national market share of 3.2 percent, and 32.8 percent of the market in Pennsylvania. As a group, hospital- and medical society-sponsored companies provided 48.4 percent of the malpractice insurance sold in 1987.

Joint underwriting associations (JUAs) are nonprofit pooling arrangements created by state legislatures to provide medical malpractice insurance to health care providers in the states in which they are established. Initially created in the 1970s as interim measures to help health care providers obtain malpractice insurance, JUAs continue to be an important source of coverage in many states. Although JUAs are intended to be self-supporting through the premiums collected, some state laws establishing the associations provide that policyholders can be assessed, up to a specified amount, for deficits experienced by the association. Deficits exceeding those that can be recouped from policyholders can generally be covered through assessments of any company authorized to write casualty insurance or specified lines of insurance in the state (Needleman and Hackbarth, 1988).

There are 13 JUAs offering coverage. These include companies in Florida, Kansas, Massachusetts, Minnesota, New Hampshire, New York, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, Texas, Virginia, and Wisconsin. The Minnesota, Puerto Rico, and Virginia JUAs were established in 1986; the remainder were founded in the 1970s. The market share of JUAs varies widely, ranging in 1986 from 3.1 percent in Kansas to 82.6 percent in Rhode Island. Market share in New York in 1986 was 21.6 percent (Kenney, 1987).

Because insurance carriers may be liable for assessments if the premiums collected by JUAs are inadequate to pay claims, the financial health of JUAs has been closely monitored by the industry. In a 1987 report for the National Coordinating Committee on Medical Malpractice JUAs, Roger K. Kenney of the Alliance of American Insurers concluded that five of the ten JUAs examined had insufficient funds to pay existing claims, even when investment income was taken into account. The remaining five, although able to meet current liabilities if current interest was taken into account, were highly vulnerable to drops in interest rates that would lower investment earnings (Kenney, 1987).

The federal Liability Risk Retention Act (LRRA) of 1986 has added options for obtaining coverage by permitting the creation of risk retention groups and purchasing groups [15 U.S.C. §3901]. These may provide or obtain liability insurance under an exemption from many state insurance laws. A risk retention group need only be licensed in one state to sell insurance in all 50. Purchasing groups are permitted under LRRA to obtain group policies from any insurer, including those not licensed in the state. State insurance departments are concerned about the financial ability of these companies, which are not subject to state form- or rate-filing rules or to capitalization standards, to meet their commitments to their clients over the long run.

It is difficult to assess accurately the size of the medical malpractice insurance market because data on it are incomplete. According to data reported by A. M. Best Co., the leading insurance rating service in the United States, direct premiums written for medical malpractice insurance in 1984 totaled $2.3 billion (Freedman, 1985) and rose to $4.7 billion in 1987 (Stern, 1988). These figures understate the total cash flow because they do not include all JUAs, patient compensation funds, a number of provider-owned companies (captives), or money paid through deductibles and self-insurance arrangements by hospitals.

Limits of Coverage

Medical malpractice insurance policies generally have a dollar limit on the amount that the insurer will pay on each claim (per occurrence) and a dollar limit for all claims (in aggregate) for the policy period, which is usually one year (GAO, 1986). A $200,000/$600,000 policy, therefore, provides coverage for up to $200,000 per claim and $600,000 per year. The amounts purchased by physicians and hospitals often differ. Hospitals frequently seek annual limits of $5 million to $30 million. Individual physicians seldom purchase annual limits as high as $5 million; most have $1 million per claim or less. Some states require certain minimum coverage amounts. In states where there is a patient compensation fund, the limits are tied to the coverage provided by the fund.

Premiums for physician malpractice insurance are typically based on the claims rate for other physicians in the same geographic area, sometimes modified by the claims experience of the individual physician. In some instances premium rates are uniform throughout a state; in others rates differ among territories within a state. Premiums also vary widely by specialty (Needleman and Hackbarth, 1988). Insurers typically divide physicians into risk classes based on the claims experience of a particular specialty. Most insurers set a base rate for each class, which may be adjusted for a number of factors, including the physician's individual claims experience and the number of high-risk procedures performed (for example, surgery or invasive diagnostic procedures). Some insurers have multiple rates for family and general practitioners, depending on the number and type of obstetrical services they provide.

Premiums for nurse-midwives are, by contrast, currently based on national ratings. Certified nurse-midwives in Arkansas and New York pay the same premium rate, even though the claims experience of each area may be very different (Needleman and Hackbarth, 1988).

There are two common types of medical malpractice insurance—occurrence-based and claims-made policies. Under an occurrence-based policy, the insurance company is liable for all incidents occurring during the period the policy was in effect, regardless of when the claim is actually filed. A claims-made policy, on the other hand, covers the insured for malpractice incidents for which claims are filed while the policy is in force. Because a claims-made policy allows insurers to more closely approximate the current environment and eliminates the need for actuaries to project claims experience far into the future, premiums for claims-made policies are usually initially lower for the insured. They generally increase each year during the initial five years of the policy until the policy "matures" (GAO, 1986). Claims filed after a claims-made policy has expired are typically covered by a tail policy, a special policy to cover residual claims. As of 1985, approximately one-half of medical malpractice policies written are for claims-made policies (Pierce, 1985), but the share has probably increased in recent years.

Availability of Medical Malpractice Insurance

Physicians

In the mid-1970s the availability of medical malpractice insurance was a major issue for physicians in many states. It is the consensus of scholars that a number of factors converged to produce a short-term crisis in some states and the contraction of markets in others (Danzon, 1985). Among the factors generally believed to account for this situation were the increase in the frequency and severity of claims, which increased the risk to underwriters at a time when the costs of capital were rising, and greater regulation in many states, including denial of rate increases perceived as necessary by actuaries and prohibitions against conversions to claims-made policies (Danzon, 1985). It has also been alleged in the press that the withdrawal of commercial insurers from offering malpractice coverage in many states during this period was orchestrated in part by the major reinsurance companies, which were frustrated in their attempts to impose claims-made policies and rate increases. A similar allegation claiming that such a conspiracy among insurers affected liability insurance for governmental entities is currently the subject of an antitrust suit brought by the attorneys general of several states [*In Re Insurance Antitrust Litigation,* C-88-1688-WWS (N.D. Calif.)].

In the late 1970s, in response to the withdrawal of commercial carriers from the medical malpractice market in many states, medical societies established their own insurance companies, in the form of mutuals or reciprocals. Similarly, many hospitals opted to self-insure through the establishment of trust funds or the formation of captive insurers domiciled offshore, thereby avoiding state regulation (Danzon, 1985). Because they are small and not diversified, these provider-owned insurance schemes are inferior bearers of risk. However, they do offer the potential advantage of reinforcing the incentives for risk reduction. According to Danzon, the key advantage of provider mutuals most likely derives from the fact that policyholders, who are also the residual claimants to profit and the residual bearers of loss, have superior incentives (as well as knowledge) to utilize claims information to monitor maloccurrence and manage risk (Danzon, 1985).

Two other structural changes occurred in the mid-1970s. Joint underwriting associations became more important, and insurers were successful in pressing their demands for acceptance of claims-made policies.

There is a consensus that the crisis of availability of professional liability insurance for physicians in the 1970s was largely addressed by the appearance of physician-owned companies, JUAs, and the conversion to claims-made policies. The situation for nurse-midwives continues to be a problem. Moreover, there has been and continues to be concern in most quarters about the affordability of medical malpractice premiums. According to AMA data, medical malpractice premiums for all physicians have increased unevenly since 1978. As Figure 6.1 illustrates, in the early 1980s the rates of increase for average physician malpractice premiums trailed the rates for other factors of medical care inflation, whereas the increases for obstetrics-gynecology malpractice premiums exceeded the medical and consumer price indices. After 1982 the rate of increase for malpractice insurance appears to have accelerated greatly for physicians in general and obstetrician-gynecologists in particular.

Average national increases can mask substantial variations among geographical regions and specialties. As Figure 6.2, based on the underwriting practices of the St. Paul Companies, suggests, rates tend to be highest in California and Illinois. It should be noted that there are other "problem" territories; St. Paul does not offer coverage in Florida, Michigan, and New York, and rates are generally higher in urban areas than in rural areas.

Between 1982 and 1986, mean professional liability premiums of self-employed obstetrician-gynecologists increased by 171 percent, while the Consumer Price Index and the medical care component of the Consumer

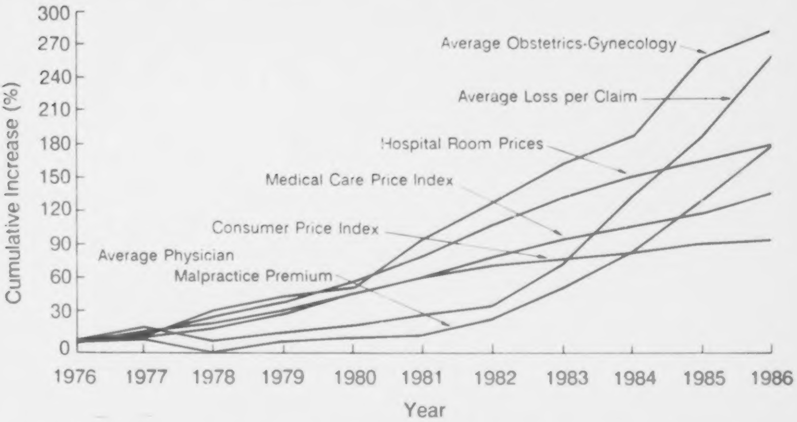

FIGURE **6.1** Comparative trends in malpractice health care costs. SOURCE: Needleman, J., and M. Hackbarth. 1988. The malpractice insurance system and obstetrical care: Recent experience and options for change. Paper prepared for the Institute of Medicine. Washington D.C.

Price Index increased by only 14 percent and 32 percent, respectively (see Table 6.1). Although the national average premium for obstetricians was approximately $30,000 in 1986, in several metropolitan areas obstetricians are paying annual premiums in excess of $100,000 per year for $1 million/$3 million coverage. During this period, premiums of self-employed physicians in other specialties rose as well, but no other specialty experienced rate increases comparable with those for obstetrics (see Table 6.1). It should be noted that the 108 percent increase experienced by family and general practitioners reflects the combined increases for those who include obstetrics in their practice and those who do not. The figure would no doubt be higher if it represented only the increase for those who include obstetrics in their practice. In California, for example, the median annual premium for family and general practitioners who performed deliveries in 1985 was $12,100; the premium for those who did not was $6,800 (see Table 6.2).

It is more difficult to track the history of premiums paid by family physicians, because there is no uniformity in their treatment by insurers. Most insurers classify family physicians in the same category as general practitioners who do surgery. The classification schedule for physicians from the Medical Liability Mutual Insurance Company (Table 6.3), located in New York, is typical and is followed in Pennsylvania and New Jersey as well. According to this schedule, a general practitioner in the New York City outer boroughs performing no surgery

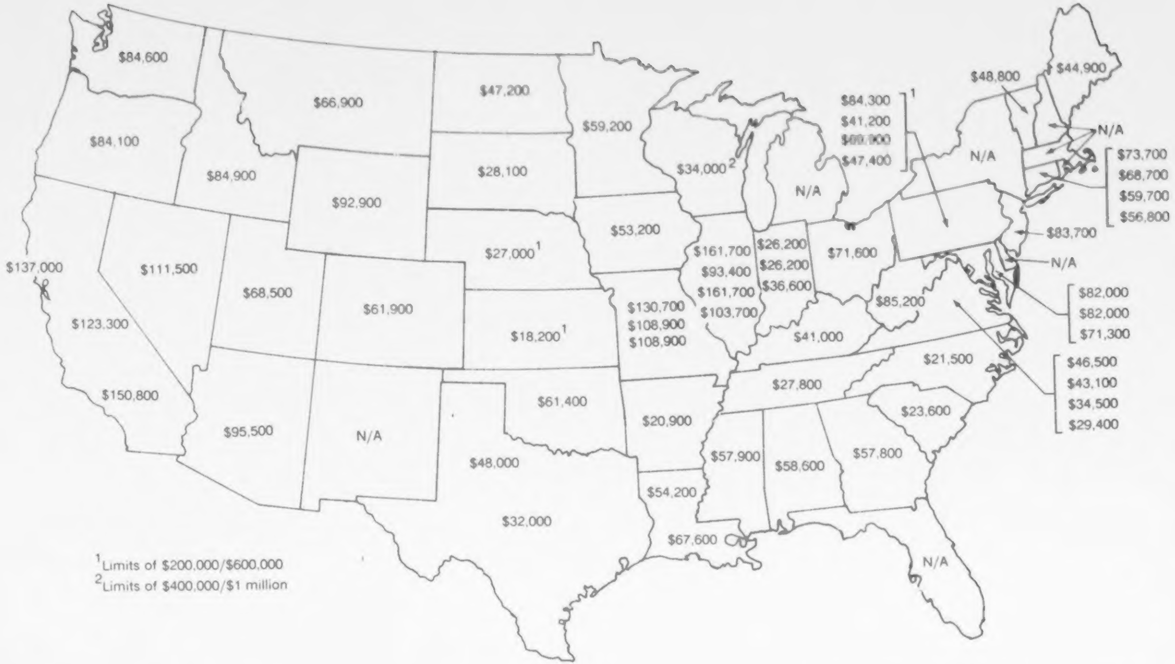
$84,600
$84,100
$66,900
$84,900
$47,200
$28,100
$92,900
$59,200
$137,000
$111,500
$123,300
$68,500
$61,900
$27,000[1]
$18,200[1]
$150,800
$95,500
N/A
$61,400
$48,000
$32,000
$53,200
$130,700
$108,900
$108,900
$20,900
$54,200
$67,600
$34,000[2]
$161,700
$93,400
$161,700
$103,700
$26,200
$26,200
$36,600
N/A
$71,600
$41,000
$27,800
$57,900
$58,600
$57,800
$23,600
$21,500
$85,200
N/A
$84,300
$41,200
$47,400
1
N/A
$48,800
$44,900
N/A
$73,700
$68,700
$59,700
$56,800
$83,700
N/A
$82,000
$82,000
$71,300
$46,500
$43,100
$34,500
$29,400
[1]Limits of $200,000/$600,000
[2]Limits of $400,000/$1 million

FIGURE 6.2 St. Paul Fire and Marine Insurance Company, OB/GYN rates at limits of $1 million/$3 million, September 1988.
SOURCE: The St. Paul Companies, St. Paul, Minn.

TABLE 6.1 Annual Changes in Mean Professional Liability Premiums of Self-Employed Physicians and in the Consumer Price Index (CPI)

Specialty	1982	1983	1984	1985	1986	Increases 1982–1986
	Thousands of Dollars					
Obstetrics-gynecology (with or without obstetrics)						
Premium	10.8	14.0	19.0	23.5	29.3	+18.5
Change from previous year	—	+29.6%	+35.7%	+23.7%	+24.7%	+171%
Family, general practice (with or without obstetrics)						
Premium	3.5	4.2	4.6	6.8	7.3	+3.8
Change from previous year	—	+20.0%	+9.5%	+47.8%	+7.4%	+108%
Internal medicine						
Premium	3.7	4.5	4.9	5.8	7.1	+3.4
Change from previous year	—	+21.6%	+8.9	+18.3%	+22.4%	+92%
Surgery						
Premium	9.9	11.0	13.3	16.6	21.3	+11.4
Change from previous year	—	+11.1%	+20.9%	+24.8%	+38.3%	+115%
Pediatrics						
Premium	2.9	3.9	3.4	4.7	6.3	+3.4
Change from previous year	—	+34.5%	−12.8%	+38.2%	+34.0%	+117%
CPI	289.2	298.4	311.2	322.2	328.4	
Change from previous year	—	+3.2%	+4.3%	+3.5%	+1.9%	+14%
Medical care component of CPI	328.7	357.3	379.5	403.1	433.5	
Change from previous year	—	+8.7%	+6.2%	+6.2%	+7.5%	+32%

SOURCES: Korenbrot, C. 1988. Effects of professional medical liability premiums on obstetric providers and the practice of obstetrics. Paper prepared for the Institute of Medicine. Washington, D.C.

TABLE **6.2** Mean Professional Liability Premiums for Physicians With and Without Obstetrical Procedures

	Premium (thousands of dollars)		
Specialty	No Deliveries	Deliveries Not Including Cesarean Sections	Deliveries Including Cesarean Sections
Obstetrics-gynecology	NC[a]	NC[a]	NC[a]
National			
California, 1985[b]	18.9	—	26.9
Washington, 1986	21.8	—	33.0
Family, general practice	5.2	7.8	9.8
National, 1986			
California, 1985[b]	6.8	12.1	
Washington, 1986	4.3	—	9.2

[a] Not calculated.

[b] The California Medical Association reported the median, rather than the mean, premium costs. The median is lower than the mean would have been in this case, but for comparisons of data for California with and without deliveries the median can be used as the mean.

SOURCES: National data, American Academy of Family Physicians. 1987. Family Physicians and Obstetrics: A Professional Liability Study. Kansas City, Mo.; California data, California Medical Association. 1987. Professional liability issues in obstetrical practice. Socioecon. Rep. Nos. 6 and 7; Washington data, Rosenblatt, R. A., and B. Detering. 1988. Changing patterns of obstetric practice in Washington State. Fam. Med. 20:101–107.

would pay $12,906 for $1 million/$3 million, whereas a general practitioner doing obstetrics and performing minor surgery would pay $25,828 and an obstetrician-gynecologist would pay $94,113 (Medical Liability Mutual Insurance Company, 1987).

The St. Paul Companies also classify general practitioners doing obstetrics as lower risk than obstetrician-gynecologists, provided the practitioner performs no cesarean sections. By contrast, the Colorado Physician Mutual Company recently tried to reclassify family physicians practicing obstetrics into the obstetrician-gynecologist class, which would have doubled the premiums for these physicians. The state insurance department rejected the rate on the basis that no evidence was presented to support it. The Colorado insurance department had previously approved the classification of family physicians practicing obstetrics as obstetrician-gynecologists by the Doctors' Company of California, which had justified the classification using California data.

The committee noted that there has been little systematic analysis of insurance company underwriting practices with regard to family physicians or the risk experience of family physicians (Needleman and Hackbarth, 1988). The actuarial experience of family physicians and the

TABLE 6.3 Medical Liability Mutual Insurance Company (MLMIC) Classifications

Professional medical liability insurance policies issued by MLMIC bear the most appropriate of the following descriptions, omitting the explanatory data shown in parentheses. Descriptions do not need to be all inclusive. Coverage is provided within a premium classification and any other classification(s) with a lower premium.

SPECIALTY CLASSIFICATION

PREMIUM CLASS 1
- Neurosurgery

PREMIUM CLASS 2
- Orthopedic Surgery

PREMIUM CLASS 3
- Obstetrics and Gynecology

PREMIUM CLASS 4
- Gynecology only—[does not provide coverage for prenatal care; obstetrical deliveries of any kind (except for assistance at cesarean section); induced abortions; or treatment of spontaneous abortions (except for those in the first trimester)]
- Otolaryngology, including otolaryngological cosmetic plastic surgery.
- Plastic and Reconstructive Surgery
- Vascular Surgery

PREMIUM CLASS 5
- General Surgery

PREMIUM CLASS 6
- Anesthesiology
- Otolaryngology, excluding cosmetic plastic surgery

PREMIUM CLASS 7
- Proctology
- Urology (including major surgery)

PREMIUM CLASS 9
- Neurology and/or Psychiatry (including the supervision, direction and/or performance of myelography, angiography and/or pneumoencephalography)

PREMIUM CLASS 14
- Allergy (including pediatric allergy)
- Dermatology, excluding dermabrasion, chemobrasion, and/or hair transplant
- Ophthalmology, excluding surgery
- Pathology and/or Hematology
- Physical medicine, rehabilitation, preventive medicine, public health
- Psychiatry and/or Neurology, excluding the supervision, direction, or performance of myelography, angiography, and/or pneumoencephalography

GENERAL PRACTICE CLASSIFICATIONS

PREMIUM CLASS 13
- General Practice, Exclusive of Surgery
- General medicine, medical diagnostic procedures, and excisional and punch biopsy; minor surgery limited to incision of boils and superficial abscesses and suturing of skin and superficial fascia; splinting or casting of nondisplaced fractures, fulguration of growths and circumcision of the newborn

PREMIUM CLASS 10
- General Practice and Minor Surgery
- General Practice as described under Premium Class 13; closed reduction of fractures, excision of superficial growths, assistance at major surgery, diagnostic D&Cs,[b] circumcision of other than the newborn and normal obstetrics defined as follows: (prenatal care; normal spontaneous deliveries, use of outlet forceps, episiotomy, repair of cervical tear in emergency situations, and use of Pitocin as an inductive agent provided:

- PREMIUM CLASS 10
  - ENT, with surgery limited to minor procedures (does not include T&A)[a]
  - Industrial Medicine and minor surgery (see description under General Practice and Minor Surgery)
- PREMIUM CLASS 11
  - Internal Medicine, including cardiac catheterization
  - Ophthalmology (including major surgery)
- PREMIUM CLASS 12
  - Computerized Tomography
  - Dermatology, including dermabrasion, chemobrasion, and/or hair transplant
  - Internal Medicine (excluding cardiac catheterization but including cardiology, gastroenterology, rheumatology, TB and lung diseases, endocrinology, and medical oncology)
  - Pediatrics (not to include T&A, other major surgery, or general or spinal anesthesia)
  - Diagnostic Radiology only
  - Radiotherapy only (additional premium required—see Special Coverage Rate)
  - Diagnostic Radiology and Radiotherapy (additional premium required—see Special Coverage Rate)
  - Urology, including minor surgery
- PREMIUM CLASS 13
  - Emergency Room Medicine
  - Industrial Medicine, excluding surgery (see description under General Practice, Exclusive of Surgery)
  - Ophthalmology, with surgery limited to minor procedures

the physician examines the patient and consults with a qualified obstetrician prior to its use and the physician is physically present on the obstetrical floor when Pitocin is being administered)

- PREMIUM CLASS 8
  - General Practice and Limited Major Surgery, No Referred Surgery or Abortions
  - General Practice as described under Premium Classes 13 and 10; nonreferred major surgery limited to T&A, herniorrhaphy, hemorrhoidectomy, and pilonidal cystectomy; hospital staff appointments limited on nonoperative obstetrics
- PREMIUM CLASS 7
  - General Practice and Limited Major Surgery and/or Anesthesiology
  - General Practice as described under Premium Classes 13, 10, and 8; referred or nonreferred major surgery limited to T&A, vasectomy, herniorrhaphy, hemorrhoidectomy, and pilonidal cystectomy; abortions through the 12th week of pregnancy done only by suction curettage; anesthesiology on a part-time basis, not to exceed an average of 12 hours per week

A physician will not qualify for a General Practice category if he or she (1) performs open orthopedic procedures or elective intraabdominal surgery, including hysterectomies, cholecystectomies, or gastrectomies or (2) in the opinion of the Professional Medical Liability Insurance and Defense Board represents a risk similar to that of a specialist.

NOTE: For insurance purposes, T&As and abortions are considered major surgery.

[a] Tonsillectomy and adenoidectomy.

[b] Dilation and curettage.

question of their formal insurance risk classification may merit further study.

Nurse-Midwives

The American College of Nurse-Midwives (ACNM) seeks to make medical malpractice insurance available to its members through a national policy with a national rate. Approximately 550 of its 1,100 members currently purchase insurance through ACNM. In 1985, after ACNM's carrier withdrew from the market, a consortium of 10 companies was formed to provide coverage to members. The plan currently provides a $1 million/$1 million claims-made policy with an initial premium of $3,700, reaching $7,000 at maturity (Needleman and Hackbarth, 1988). There was, and remains, considerable disagreement between the insurers and the ACNM over the appropriateness of the premiums and the actuarial assumptions on which they are based. Seeking to minimize their risk, the companies based their rates on the risks experienced by physicians doing low-risk obstetrics, arguing that liability claims for certified nurse-midwives (CNMs) can be expected to approximate those of such physicians over time. The ACNM, citing the low rate of suit for CNMs (only 6 percent have ever been named in medical malpractice suits), argues that an experience-rated policy would have a much lower premium, at least based on early data.

In some states medical malpractice insurers have sought to impose surcharge premium rates on obstetrician-gynecologists who supervise or provide physician coverage for CNMs (Needleman and Hackbarth, 1988). The justification for this practice is that a collaborating physician is likely to be joined as a defendant in any action against a nurse-midwife. The ACNM argues that these surcharges are not actuarially justified, that they have limited the employment opportunities of CNMs, and that in some instances physicians have asked the nurse-midwives to pay the surcharge.

Because claims data have not been readily available for systematic analysis or public discussion, it is difficult to assess these contentions. Historically, physician groups have sought to discourage the affiliation of obstetrician-gynecologists and CNMs, both through restrictions on hospital privileges and access to malpractice insurance (Lazarus et al., 1981).

THE AFFORDABILITY OF PREMIUMS

Are rising premiums burdening obstetrical providers? This question was not easy to answer. The committee looked at the increases in

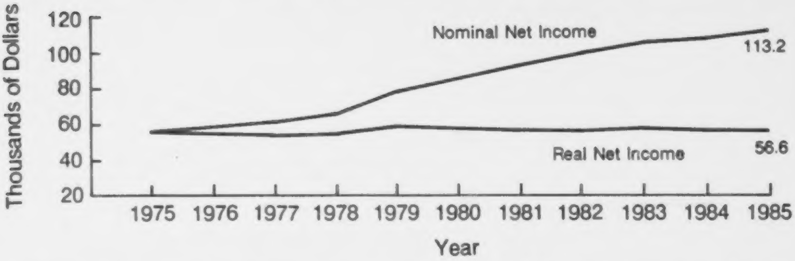

FIGURE 6.3 Physician income trends, 1975–1985. SOURCE: American Medical Association, Center for Health Policy Research. 1986. Socioeconomic Characteristics of Medical Practice. Chicago.

premium rates for obstetrical providers and the relationship of those increases to gross income, net income, and other professional expenses. The committee declined to compare the incomes of obstetrical providers with those of other professionals or wage earners in the U.S. economy because it believed that the issue of relative wages for various professions or groups was too complex and went beyond the scope of this study. First, it should be noted that, overall, real net income for all physicians has held fairly steady between 1975 and 1985, according to data compiled by the AMA (Figure 6.3). Moreover, when income trends for the specialties are examined separately, obstetrician-gynecologists as a group appear to have maintained their real net income during the decade (see Table 6.4). The committee was aware, however, that these average national statistics mask a huge variation among obstetrical providers in various regions and with various amounts of experience.

Premiums as a Percentage of Gross Income

To further evaluate the issue of whether medical malpractice premiums are burdening obstetrical providers, the committee examined the data documenting the relationship of premiums to the gross income and professional expenses of obstetrical providers. The AMA data indicate that between 1982 and 1986 liability expenses rose from 4.9 to 10.3 percent of gross income for obstetrician-gynecologists, more than for any other specialty group analyzed (see Tables 6.5 and 6.6). Moreover, gross income grew less for obstetrician-gynecologists (29 percent) than for most other specialists. For all specialties analyzed (see Table 6.5), increases in gross income were higher than the growth in the Consumer Price Index over the same period (14 percent) but comparable with the growth in medical care charges (32 percent) (see Table 6.1).

TABLE 6.4 Annual Change in Average Physician Net Income, After Expenses and Before Taxes, 1975–1985

	Average Net Income				
		1985		Annual Change (%)	
Specialty	1975	Nominal	Real[a]	Nominal	Real[a]
Family, general practice	45.0	7.9	38.9	5.5	−1.5
Internal medicine	57.0	101.0	50.5	5.9	−1.2
Surgery	68.2	155.4	77.7	8.6	1.3
Pediatrics	44.3	77.1	38.6	5.7	−1.4
Obstetrics-gynecology	63.3	122.7	61.4	6.8	−0.3
Radiology	75.2	150.8	75.4	7.2	0.0
Psychiatry	44.8	88.6	44.3	7.1	−0.1
Anesthesiology	57.1	140.2	70.1	9.4	2.1
All physicians	56.4	113.2	56.6	7.2	0.0

[a] Adjusted to 1975 dollars.

SOURCE: Korenbrot, C. 1988. Effects of professional medical liability premiums on obstetric providers and the practice of obstetrics. Paper prepared for the Institute of Medicine. Washington, D.C. Based on data in America Medical Association, Center for Health Policy Research. 1987. Socioeconomic Characteristics of Medical Practice. Chicago.

It is more difficult to draw conclusions about the affordability of premiums for family physicians, because the data are scarce and are not disaggregated into family physicians who do or do not provide obstetrical care (Needleman and Hackbarth, 1988). It is, therefore, impossible to make relevant comparisons.

The committee found that, although nurse-midwives pay an average premium that is lower than that paid by physicians, the $4,000 average annual premium represents a greater proportion of their gross income—approximately 14 percent (Patch and Holaday, 1988), compared with approximately 10 percent for obstetrician-gynecologists, 7 percent for surgeons, and 3 to 4 percent for family and general practitioners, internists, and pediatricians (see Table 6.5).

Premiums as a Percentage of Professional Expenses

The committee also examined data documenting the relationship of professional liability premiums to the other professional expenses of obstetrical providers (see Table 6.6). *These data indicate that professional liability premium expenses constitute a higher proportion of professional expenses for obstetricians than for other specialists and that the proportion is rising.*

Liability premiums as a proportion of professional expenses rose by more than 50 percent for all medical specialties between 1982 and 1986.

However, the proportion increased by nearly 100 percent for obstetrician-gynecologists (10.0 to 19.6 percent). In 1986 liability insurance constituted one-fifth of all professional expenses of obstetrician-gynecologists (19.6 percent, AMA, 1987; 20.7 percent, ACOG, 1988). This compares with 14.3 percent for surgeons and approximately 6 percent for pediatricians, internists, and family and general practitioners.

Premiums as a Percentage of Net Income

Finally, the committee examined the data documenting the relationship of professional liability premiums to net income (see Table 6.7). In spite of the 171 percent rise in premium costs between 1982 and 1986 the average net income of obstetrician-gynecologists grew by 21 percent during this period.

Because average professional expenses of obstetrician-gynecologists rose 38 percent during this period, the committee hypothesized that self-

TABLE 6.5 Mean Liability Premiums as Percent of Mean Gross Income of Self-Employed Physicians

Specialty	1982	1983	1984	1985	1986	Increase, 1982–1984
	Thousands of Dollars					
Obstetrics-gynecology						
Premium	10.8	14.0	19.0	23.5	29.3	171%
Gross income	220.6	226.6	240.0	256.8	285.4	29%
Percent of gross	4.9%	6.2%	7.9%	9.2%	10.3%	
Family, general practice						
Premium	3.5	4.2	4.6	6.8	7.3	108%
Gross income	146.7	146.3	160.8	174.4	200.2	36%
Percent of gross	2.3%	2.9%	2.9%	3.9%	3.6%	
Internal medicine						
Premium	3.7	4.5	4.9	5.8	7.1	92%
Gross income	161.8	183.1	193.9	192.0	219.9	36%
Percent of gross	2.3%	2.4%	2.5%	3.0%	3.2%	
Surgery						
Premium	9.9	11.0	13.3	16.6	21.3	115%
Gross income	232.3	256.6	279.9	290.7	311.0	34%
Percent of gross	4.3%	4.3%	4.8%	5.7%	6.8%	
Pediatrics						
Premium	2.9	3.9	3.4	4.7	6.3	117%
Gross income	138.2	134.9	151.5	163.5	175.0	27%
Percent of gross	2.1%	2.9%	2.2%	2.9%	3.6%	

SOURCE: Korenbrot, C. 1988. Effects of professional medical liability premiums on obstetric providers and the practice of obstetrics. Paper prepared for the Institute of Medicine. Washington, D.C. Based on data in America Medical Association, Center for Health Policy Research. 1987. Socioeconomic Characteristics of Medical Practice. Chicago.

TABLE 6.6 Mean Liability Premiums as Percent of Mean Professional Expenses of Self-Employed Physicians

Specialty	1982	1983	1984	1985	1986	Increase 1982–1984
	Thousands of Dollars					
Obstetrics-gynecology						
Premium	10.8	14.0	19.0	23.5	29.3	171.0%
Professional expenses	108.3	108.5	121.6	131.9	149.5	38.0%
Percent of expenses	10.0%	12.9%	15.6%	17.8%	19.6%	96.0%
Family, general practice						
Premium	3.5	4.2	4.6	6.8	7.3	108.0%
Professional expenses	75.3	79.4	89.2	96.5	119.9	59.0%
Percent of expenses	4.6%	5.3%	5.2%	7.0%	6.1%	32.6%
Internal medicine						
Premium	3.7	4.5	4.9	5.8	7.1	92.0%
Professional expenses	74.9	88.5	89.7	90.0	110.5	48.0%
Percent of expenses	4.9%	5.1%	5.4%	6.4%	6.4%	30.6%
Surgery						
Premium	9.9	11.0	13.3	16.6	21.3	115.0%
Professional expenses	103.7	112.3	128.9	135.7	148.6	43.0%
Percent of expenses	9.5%	9.8%	10.3%	12.2%	14.3%	50.5%
Pediatrics						
Premium	2.9	3.9	3.4	4.7	6.3	117.0%
Professional expenses	67.7	64.1	77.8	87.3	93.2	38.0%
Percent of expenses	4.3%	6.1%	4.4%	5.4%	6.8%	58.1%

SOURCE: Korenbrot, C. 1988. Effects of professional medical liability premiums on obstetric providers and the practice of obstetrics. Paper prepared for the Institute of Medicine. Washington, D.C. Based on date in America Medical Association, Center for Health Policy Research. 1987. Socioeconomic Characteristics of Medical Practice. Chicago.

employed obstetrician-gynecologists performed a larger volume of services or increased their fees for services, or both. It should be noted that surgeons and internists had the largest proportionate increases in their net incomes (26 percent each) and that family and general practitioners had the smallest (12 percent).

Although the committee found the aggregate national data to be important, it agreed that these data do not fully reveal the burden of rising premiums on obstetrical providers. To discover that, it would be necessary to compare the real net incomes of various types of obstetrical

TABLE 6.7 Mean Liability Premiums as Percent of Mean Net Income of Self-Employed Physicians

Specialty	1982	1983	1984	1985	1986	Increase 1982–1984
	Thousands of Dollars					
Obstetrics-gynecology						
Premium	10.8	14.0	19.0	23.5	29.3	171%
Net income	112.3	118.1	118.8	124.3	135.9	21%
Percent of net income	9.6%	11.8%	16.0%	18.8%	21.6%	
Family, general practice						
Premium	3.5	4.2	4.6	6.8	7.3	108%
Net income	71.4	66.9	71.6	77.9	80.3	12%
Percent of net income	4.9%	6.3%	6.4%	8.7%	9.1%	
Internal medicine						
Premium	3.7	4.5	4.9	5.8	7.1	92%
Net income	86.9	94.6	104.2	102.0	109.4	26%
Percent of net income	4.3%	4.8%	4.7%	5.7%	6.5%	
Surgery						
Premium	9.9	11.0	13.3	16.6	21.3	115%
Net income	128.6	144.3	151.0	155.0	162.4	26%
Percent of net income	7.7%	7.6%	8.8%	10.7%	13.1%	
Pediatrics						
Premium	2.9	3.9	3.4	4.7	6.3	117%
Net income	70.5	70.8	73.7	76.2	81.8	16%
Percent of net income	4.1%	5.5%	4.6%	6.2%	7.7%	

SOURCE: Korenbrot, C. 1988. Effects of professional medical liability premiums on obstetric providers and the practice of obstetrics. Paper prepared for the Institute of Medicine. Washington, D.C. Based on data in America Medical Association, Center for Health Policy Research. 1987. Socioeconomic Characteristics of Medical Practice. Chicago.

providers at various stages of their professional careers over time. For example, it would be necessary to compare the net incomes of obstetricians in their fifth year of practice in 1975 in, say, Chicago, to the net income of Chicago obstetricians in their fifth year of practice in 1985. Such disaggregated data do not exist. Accordingly, the committee could only conclude that the national aggregated data that are available do not suggest that rising premiums are depressing net income on a national basis.

Rising Professional Liability Premiums Linked to Increases in Fees

The evidence available to the committee suggests that fees for obstetrical services have increased in absolute terms and because of defensive services undertaken to protect the physician against professional liability claims.

There were far fewer data available on this issue than the committee would have liked. In a study conducted by the AMA using two different econometric regression models and the AMA survey data, Reynolds and colleagues found that approximately 60 percent (63 percent by one method and 57 percent by another) of the increased cost of physician services between 1983 and 1984 could be attributed to increases in professional liability expenses (Reynolds et al., 1987). In addition to premium costs, this study took into account the increased expenses of practice changes and settling claims, including keeping more detailed records, prescribing more diagnostic tests and treatment procedures, spending more time with patients, having more follow-up visits, days lost from practice for claims, and attorney fees not covered by insurance.

Available survey data also suggest that professional liability costs are causing an increase in fees. Nationally, three-quarters of obstetrician-gynecologists surveyed in 1983 and almost 90 percent in 1985 reported that they had increased their fees because of professional liability costs (ACOG, 1983, 1985). The 1985 ACOG survey reported that 94.7 percent of obstetrician-gynecologists in Florida had increased their professional fees as a result of the increased costs of liability insurance. Two-thirds (66 percent) of physicians responding to a Florida task force survey indicated that they had increased their fees in the last year in response to increased liability premiums or concern over malpractice claims (Academic Task Force for Review of the Insurance and Tort Systems, 1987). Among those who had increased their fees, 34 percent said it was in response to professional liability insurance costs (Academic Task Force, 1987). In California 82 percent of obstetrician-gynecologists and 15.9 percent of family and general practitioners reported that they had increased their fees because of higher professional liability insurance costs (CMA, 1987). Nearly 60 percent said that these increases were needed to offset direct costs of insurance, while 30 percent said the need to practice more costly "defensive medicine" was the more important reason.

The services for which fees were found to be most sensitive to premiums in the AMA survey (1987) were obstetrical care, hysterectomy, and follow-up hospital visits (for all specialties). Changes in fees charged by obstetrical providers indicate that these are the categories in which fees grew disproportionately more for obstetrician-gynecologists between 1982 and 1986 than for other specialists (see Tables 6.8–6.10). Average fees for office visits for new patients rose more slowly for obstetrician-gynecologists (19 percent) than for family and general practitioners (29 percent), internists (26 percent), or pediatricians (32

TABLE 6.8 Mean Fees for Office Visits

	1982	1983	1984	1985	1986	Increase
Specialty	Thousands of Dollars					1982–1986
Office Visit with a New Patient						
Obstetrics-gynecology						
Fee	44.60	47.87	46.85	51.62	52.98	19%
Standard error	±1.62	±1.76	±0.99	±1.11	±1.20	
Family, general practice						
Fee	26.81	30.22	29.98	31.72	34.61	29%
Standard error	±0.66	±0.75	±0.69	±0.72	±0.99	
Internal medicine						
Fee	62.78	69.54	68.95	74.00	79.19	26%
Standard error	±1.84	±2.11	±1.89	±2.22	±2.12	
Surgery						
Fee	42.32	42.67	44.49	48.28	50.20	19%
Standard error	±0.88	±0.93	±0.90	±1.01	±1.09	
Pediatrics						
Fee	30.32	35.62	35.37	34.55	40.00	32%
Standard error	±1.18	±1.68	±1.23	±1.17	±2.15	
Revisit by an Established Patient						
Obstetrics-gynecology						
Fee	26.65	29.42	31.49	32.41	34.81	30%
Standard error	±0.62	±0.72	±0.76	±0.66	±0.75	
Family, general practice						
Fee	18.38	19.86	20.76	22.06	23.48	28%
Standard error	±0.33	±0.31	±0.30	±0.29	±0.31	
Internal medicine						
Fee	26.75	28.18	30.37	30.43	34.03	27%
Standard error	±0.59	±0.56	±0.61	±0.53	±0.83	
Surgery						
Fee	23.62	24.58	26.07	28.73	29.66	26%
Standard error	±0.41	±0.39	±0.41	±0.56	±0.52	
Pediatrics						
Fee	21.57	23.37	24.65	25.13	27.3[illegible]	27%
Standard error	±0.50	±0.60	±0.53	±0.50	±0.61	

SOURCE: Korenbrot, C. 1988. Effects of professional medical liability premiums on obstetric providers and the practice of obstetrics. Paper prepared for the Institute of Medicine. Washington, D.C. Based on data in America Medical Association, Center for Health Policy Research. 1987. Socioeconomic Characteristics of Medical Practice. Chicago.

TABLE 6.9 Mean Fees for Follow-up Hospital Visits

Specialty	1982	1983	1984	1985	1986	Increase 1982–1984
	Thousands of Dollars					
Obstetrics-gynecology						
Fee	21.43	31.59	30.81	33.56	34.82	62%
Standard error	±1.03	±1.76	±1.17	±1.41	±1.40	
Family/general practice						
Fee	21.76	24.62	24.80	26.80	27.04	24%
Standard error	±0.48	±0.63	±0.48	±0.49	±0.50	
Internal medicine						
Fee	28.39	31.65	33.61	34.06	35.19	24%
Standard error	±0.62	±0.78	±0.86	±0.80	±0.73	
Surgery						
Fee	21.96	28.29	29.26	30.69	33.42	52%
Standard error	±0.55	±0.70	±0.62	±0.67	±0.67	

SOURCE: Korenbrot, C. 1988. Effects of professional medical liability premiums on obstetric providers and the practice of obstetrics. Paper prepared for the Institute of Medicine. Washington, D.C. Based on data in America Medical Association, Center for Health Policy Research. 1987. Socioeconomic Characteristics of Medical Practice. Chicago.

percent) (see Table 6.8). Average fees for office visits for established patients rose at about the same rate (30 percent) for all specialties surveyed (see Table 6.8). However, average fees for hospital follow-up visits rose faster for obstetrician-gynecologists (62 percent) than for the other specialists (see Table 6.9). Median fees for obstetrical care and gynecological surgical procedures by obstetrician-gynecologists rose faster than those of other surgical procedures performed by surgeons (see Table 6.10).

Available data indicate that nurse-midwives are also raising their fees, but even these increases may not fully compensate for the sharp increases in insurance premiums that they have incurred. During one year in which professional liability premiums for nurse-midwives increased by 114 percent, nurse-midwives raised their fees on average by only 18 percent (Patch and Holaday, 1988).

PROFITABILITY OF MEDICAL MALPRACTICE INSURANCE

The pervasive phenomenon of rising medical malpractice premiums prompted the committee to question the business practices of medical malpractice insurers. In particular, because many have alleged that insurance practices are at the heart of the professional liability issue, the committee believed that it should question how profitable the medical malpractice business is and whether underwriters are reaping su-

TABLE **6.10** Median Fees for Selected Obstetrical and Surgical Procedures

Procedure	1982	1983	1984	1985	1986	Increase 1982–1984
	Dollars					
Complete obstetrics care						
Obstetrician-gynecologist	701	750	801	897	1,001	43%
Family physician	501	550	551	604	701	40%
General practitioner	450	500	501	600	651	45%
Total hysterectomy						
Obstetrician-gynecologist	901	1,001	1,100	1,200	1,400	55%
General surgeon	813	901	901	1,000	1,101	35%
Dilation and curettage						
Diagnostic	251	300	300	350	366	46%
Abortion	292	301	350	351	365	25%
Appendectomy	501	551	600	621	700	40%
Cholecystectomy	822	901	917	1,000	1,044	27%
Lumbar laminectomy	1,642	1,772	1,801	2,000	2,122	29%

SOURCE: *Medical Economics*, October issue of each year.

pranormal profits. The committee's study of these questions was limited. It examined major studies available as of August 1988. It is aware that other studies of the insurance industry are in progress. The committee found little support in these studies for the proposition that excess profits on the part of insurers have been a major contributor to the increase in medical malpractice insurance costs in obstetrics. Rather, the principal factors appear to have been increased frequency and severity of claims and the lowering of interest rates in the national economy, which has reduced the investment income of insurers. As one committee member summarized the committee's review of this literature, "The evidence suggests that medical malpractice premiums are the barometer, not the weather, with regard to the medical malpractice problem in obstetrics." However, some committee members were not satisfied with the existing literature and believed that a more complete analysis of the role played by insurance companies in setting rates for medical malpractice premiums is warranted.

Insurers set rates (that is, premiums) to cover three types of expenses: (1) losses occurring during a period, (2) administrative costs incurred, and (3) money set aside for unknown contingencies, known as the reserve. An insurer's profit is the surplus above these expenses, and it may be retained or distributed to shareholders as dividends (GAO, 1986).

Insurers attempt to predict future claims and expenses on the basis of past experience. This is a difficult task. Frequency and severity of claims have changed over time, and fluctuations in inflation and interest rates are hard to foresee. Moreover, the use of statistics from past years to predict future losses is based on the law of large numbers—as the number of insured physicians and hospitals increases, actual losses will approximate more closely expected losses. However, because the medical malpractice insurance market is small in comparison to the overall insurance industry, the statistical base is, in turn, small and it is particularly difficult to set accurate premiums in this market (GAO, 1986).

Profitability in the insurance industry is determined by combining both underwriting results and investment results. Profitability estimates for medical malpractice and for general liability insurance depend on the adequacy of the reserves for future payment of claims (losses) and whether those reserves are discounted to reflect their present values. Insurance reserves, which are accounted for as an expense, reflect actuarial estimates of future losses. Because of the problem of accounting for reserves, measurements of the profitability of an insurer in any given year may understate or overstate the ultimate results of an insurance operation (GAO, 1987).

Given all the sources of uncertainty, insurance and reinsurance company personnel try to set premiums that will maintain long-term business profitability, but there are typically cycles of competitive rate-cutting followed by sudden increases in premiums. The mid-1970s and mid-1980s are examples of this pattern, which goes back decades and can be expected to continue in the future. Although individual states may vary, recent reports indicate that nationwide there has been a decline in the rate of increase of liability insurance premiums because of the increased capital that insurers have accumulated (Needleman and Hackbarth, 1988).

The question of the profitability of medical malpractice insurance has been examined by several groups, including the General Accounting Office (GAO), Florida's Academic Task Force for Review of the Insurance and Tort Systems, and the Tort Policy Working Group, an interagency working group of the federal government and the New York State Department of Insurance (Needleman and Hackbarth, 1988). All these groups concluded that the rate of return earned by the medical malpractice insurance industry was comparable with or less than that of other industries competing for the same investment capital.

The GAO study estimated the profitability of the property-casualty insurance industry, concentrating on the medical malpractice and general liability insurance lines for the period 1975 through 1985 (GAO, 1987). It relied on data on premiums, losses, and expenses reported by the A. M. Best Company. Best's data do not include joint underwriting associations, reinsurers, or self-insurance mechanisms. The GAO concluded that, despite incurring substantial underwriting losses from 1976 through 1985, the property-casualty insurance industry has more than offset those losses with investment gains (GAO, 1987). The GAO concluded that the underwriting losses resulted, in part, from the industry's strategy of sacrificing underwriting gains in an attempt to attract more business and thereby enhance investment gains. The GAO estimated that the industry's average rate of return for the period was 11 percent. This compares with a return in banking of 12.7 percent, utilities of 12.2 percent, transportation of 11.5 percent, and all industries of 13.2 percent. The GAO concluded that the returns were not out of line with those of other industries.

The Tort Policy Working Group also evaluated the industry's profitability (Tort Policy Working Group, 1987). Using data from the Insurance Information Institute, the group concluded that

> [The insurance] industry's rate of return on net worth for 1986 was 11.6 percent. This rate of return is roughly equivalent to the industry's ten-year average for 1976 to 1985 . . . and is slightly less than the ten-year rate of return for Fortune 500 industrial corporations. . . . Thus, while the industry significantly improved its rate of return, that rate was substantially less than its most recent high years (19 percent in 1977 and 18.1 percent in 1978), and was still less than the rate of return of many companies competing with the industry for investment capital (Tort Policy Working Group, 1987).

The Florida task force conducted a similar analysis and reached a similar conclusion. It found that "the average annual compound rate of return on equity for these insurers from 1977 through 1985 was 16.3 percent. This return was slightly greater than the return in the property-casualty industry as a whole, but it still was well within the normal range for American corporations." The task force concluded that it must "reject the assertion that excess insurance company profits are a cause of the medical malpractice crisis. On the other hand, the liability insurance industry's financial condition is not nearly as serious as it sometimes claims. . . . " (Nye et al., 1988).

The New York State Department of Insurance conducted a study that examined the financial results for medical malpractice policies written from 1959 through 1976 in New York State to determine when the funds, including interest earnings, to pay claims were exhausted for the claims for a given year and whether additional liability remained. The department concluded that to fund claims on policies for these years insurers should have collected an additional $272.5 million in premiums for this period. This study concluded that rates were deficient during this period (Needleman and Hackbarth, 1988).

Insurer Risk Management Activity

Several insurers have undertaken significant risk management activities in the last decade to stem the tide of rising medical malpractice claims. Some of these efforts have occurred in commercial insurance companies, but more have been initiated in the physician- and hospital-sponsored organizations. For example, the Harvard Risk Management Foundation, which provides services to 14 health care facilities and the thousands of physicians participating in the Harvard Medical Institutions insurance program, has been highly influential in the field of risk management. The foundation engages in a full range of risk management activities, including assisting its member institutions in analyses of loss and loss prevention protocols in an effort to improve risk management and quality assurance programs.

The committee was interested in any efforts by insurers to use their information bases to identify high-risk areas and to encourage more effective or appropriate methods of managing the risks of medical care. Accordingly, it commissioned the firm of Lewin/ICF to conduct a study of the extent to which risk management activities are currently under way in obstetrics. A list of insurers and organizations surveyed and the results of the survey may be found in Appendixes E and F.

Risk management efforts tended to fall into one of four categories: (1) activities related to data gathering and analysis, (2) clinical standard setting and the development of protocols, (3) educational efforts, and (4) discounted premiums as incentives to involve physicians in risk management activities. The committee found that many insurers engaged in all four types of activities.

Data Gathering and Analysis

There are signs that medical malpractice insurers are increasingly committed to using their claims data to assist providers in identifying and avoiding risks. The St. Paul Fire and Marine Insurance Company has established a closed-claim file for obstetrical and birth injury cases. St. Paul has involved physicians and health services researchers from the University of Minnesota in analyzing the incidents in this data base. At least one study on risk factors in obstetrical malpractice has already been published (Julian et al., 1985). St. Paul claims that it has implemented some risk management programs based on the study and is helping obstetrician-gynecologists identify high-risk patients.

Other insurers are also attempting to make use of their claims data. The Physician Insurers' Association of America (PIAA) is seeking ways to use the claims reports it receives from member companies about birth injuries and other large losses as a basis for studies to identify the causes of losses and for educational programs for physicians. In addition, it is making its data available to the Council on Medical Specialty Societies. Several New York insurers have worked together to develop a claims-tracking system to identify problem physicians. The risk management-loss prevention program of the Pennsylvania Medical Society Liability Insurance Company maintains a computerized risk management claims data base that is used to identify trends and patterns in claims by specialty. Similar programs exist in other states.

Clinical Standard Setting and Protocol Development

One of the most ambitious, advanced projects under way to develop obstetrical standards is the Clinical Standards Development Project for the Obstetrical Services of the Harvard Medical Institutions. During the autumn of 1986, the Harvard obstetrical chiefs reviewed a detailed study of 54 open and closed obstetrics-related claims managed over a 10-year period by the Harvard Risk Management Foundation. Without attributing fault or blame, they identified approximately 30 areas in which they believed implementation of uniform standards might help identify and prevent certain types of mishaps. These areas included documentation of obstetrical care from the prenatal period through postpartum care; assessment of fetal well-being in labor, including the use of electronic fetal monitoring; and physician coverage and availability in labor and delivery. Beginning in November 1986 and continuing periodically throughout 1987, the chiefs met to draft standard language, with the assistance of Risk Management Foundation staff.

The project authors framed their recommendations as standards, not as guidelines or options. The project set forth the view that the standards should be stated in objective, measurable language so that compliance could be evaluated as part of obstetrical peer review. In addition to the Harvard claims data, sources for the standards included ACOG's Standards for Obstetric-Gynecologic Services, the collective expertise of the Harvard medical community, existing departmental rules and regulations, and certain loss prevention or underwriting guidelines developed by other groups, such as the Insurance Requirements for Obstetrical Practice of the Utah Medical Insurance Association.

Phase I Clinical Standards for the Obstetrical Services of the Harvard Medical Institutions were finalized by the obstetrical chiefs in August 1987. Phase I standards address such issues as preserving fetal monitoring records and mandatory assistance when an obstetrician's labor or delivery caseload may be unsafe. Phase II standards will address assessment of fetal well-being in labor, including the use of midforceps and the vacuum extractor. In addition, the project is in the process of reviewing consent forms for certain obstetrical procedures. Draft language is also being developed for the portion of Phase III standards that focuses on management protocols for special clinical situations, such as premature labor and toxemia.

The Utah Medical Insurance Association is also active in standard-setting activities as a method of risk management. It has developed a manual with specific protocols that its insured physicians are expected to follow. A panel of physicians, including faculty from the University of Utah and individuals insured under the plan, developed these protocols from ACOG guidelines and company claims data. The manual addresses a variety of issues, including prenatal recordkeeping, criteria for consultation and referral, antepartum testing, hypertension and pregnancy, antepartum fetal surveillance, forceps and vacuum extraction, breech delivery, protocols for oxytocin, and standards for the services that should be available at the hospital (Needleman and Hackbarth, 1988).

The Colorado Physician Insurance Company is also promoting the use of clinical standards. It currently requires its insureds to use preestablished flow sheets for prenatal data and to use ultrasound on a specified schedule near term.

The survey performed for the committee revealed a range of attitudes among insurers regarding the development and imposition of clinical standards. Some insurers are prepared to make strong recommendations regarding actual procedures to follow, such as the use of fetal monitoring. Others feel comfortable making recommendations regarding documentation or certain follow-up activities to high-risk deliveries. Other insurers eschew standards altogether, both because they believe that physicians should be in charge of their own practices and because they fear that any insurer recommendations will become a legal standard of care that will be used to discredit an insured physician who does not follow them (Needleman and Hackbarth, 1988).

Educational Efforts

The survey done for the committee revealed that medical malpractice insurers are engaging in a broad range of educational efforts aimed at promoting risk management on the part of insureds. Several insurers, including St. Paul and the Pennsylvania Medical Society Liability Insurance Company, publish monthly or bimonthly newsletters containing both general information and discussions of specific problems that have surfaced. Some insurers have developed home-study materials, including videotapes and free medical-legal correspondence courses. The Pennsylvania Medical Society Liability Insurance Company offers a "Self-Assessment of Practice" for physicians and will conduct office audits for interested physicians and programs for office staff. This insurer is also developing a program to improve physician-patient rapport through the use of such tools as the Myers-Briggs personality test to help physicians understand their strengths and weaknesses in interactions with patients.

Discounted Premiums as Risk Management Incentives

Some companies offer reduced premiums as an incentive to involve physicians in risk management activities, the survey found. These discount programs vary widely, with some available only to groups of physicians and others to individuals. Eligibility is predicated on such factors as taking specific seminars or courses, agreeing to follow specific procedures, and undergoing audits of office recordkeeping and back-up procedures. Other companies reported a reluctance to introduce such plans out of concern for adverse customer reaction. Some companies reported that plans including discounted premiums were rejected by state insurance commissioners.

PROPOSALS TO ALTER THE MEDICAL MALPRACTICE INSURANCE SYSTEM

A number of proposals have been advanced in the last decade to address the medical professional liability problem by altering the practices of medical malpractice insurers. The committee found that these proposals tend to fall into five categories:

- proposals to reduce the cost of medical malpractice insurance by spreading the costs over a wider base,
- proposals to limit the number of insured claims by resolving certain types of claims outside the tort system,
- proposals to limit the amounts of awards,
- proposals to increase physician coinsurance or self-insurance in an effort to increase accountability, and
- proposals to expand insurer involvement in risk management and insurer-provider cooperation in such activities.

Below are the committee's findings concerning the current state of the debate on these proposals.

Spreading the Costs of Coverage Over a Wider Base

Several strategies for reducing the costs of premiums for physicians have been discussed. These include

- reducing the number of risk classifications, thereby spreading the risk of higher risk specialists over larger groups of physicians and making claims results more predictable over time,
- allowing physicians to purchase lower levels of insurance when coverage for higher levels is provided elsewhere, and
- subsidizing the JUA or residual policy market from other sources or by postponing needed rate increases.

Many malpractice insurance companies have 14 or more categories of risk. These rating distinctions have the effect of segregating high-risk specialties into a narrow group that is intended to be self-supporting through high premium payments. A system with fewer classifications would pool risks, thereby lowering premiums for physicians in the high-risk specialties.

Closely related to this approach are proposals providing for the explicit cross-subsidization of high-risk specialties by low-risk specialties. Rather than reclassification, surcharges would be levied on lower risk classes to lower the premiums for higher risk practitioners.

These types of proposals were considered by the Florida task force on medical malpractice and by the New York State Department of Insurance. Both groups rejected the approach. First, there was a practical concern that such practices would lead to cream skimming, that is, insurers taking only the lower risk physicians who fell into any given category. It was believed that the approach would not work in a competitive market for this reason. Moreover, most insurance consumers, including physicians, purchase policies in the belief that the premiums reflect individualized risk assessments that relate to their individual exposure to losses. Wide physician resistance can be anticipated from cross-subsidization schemes that do not account for the real differences in risk profiles among specialties.

Various proposals have been advanced to allow physicians to reduce the limits of their coverage because others are assuming some of the risk of their practices. The patient compensation fund is one such device. It is designed to insure physicians against all risks above a certain level or in a certain category. This system requires participating physicians to purchase coverage up to the level at which the fund would assume liability but permits them to limit their coverage to the level at which fund participation begins.

Many states support patient compensation funds by surcharging medical malpractice insurance of physicians and hospitals. Because the funds have often operated in whole or in part on a cash flow basis rather than on a basis of funding future liabilities, this has allowed the combined premium and surcharge to be lower initially than an insurance premium for comparable coverage would be. As the coverage provided by such funds matures, however, surcharges can rise quickly. For this reason, some states that developed such funds still encounter financing problems. For example, the Florida Patient Compensation Fund collapsed when it was unable to collect adequate funds through assessments. Patient compensation funds can also be funded through levies on providers based on their volume of patients or levies on institutional providers such as hospitals (Needleman and Hackbarth, 1988). The AMA has endorsed the development of patient compensation funds.

New York State has developed a variation on this approach. Most physicians in New York purchase primary medical malpractice coverage of $1 million/$3 million. In 1985, because of mounting physician concern about high awards and the high cost of insurance coverage, the New York legislature required hospitals, at the request of their attending physicians, dentists, and oral surgeons, to obtain an additional layer of $1 million/$3 million, to be paid for by the hospital. The cost of this additional coverage in 1985 was 30 percent of the primary coverage (in 1987, it rose to 40 percent). In 1986 and 1987 the legislature continued the program and allowed physicians to obtain a third layer of coverage through the state's JUA, for 15 percent of the base coverage in 1986 and 28 percent in 1987.

This Excess Liability Insurance Pool program effectively shifts a significant portion of the burden of purchasing higher limits of malpractice insurance from the physician to the hospital and to those who purchase hospital services. The state had hoped to obtain federal participation in this program through Medicaid, but the Department of Health and Human Services ruled in 1987 that the program was not entitled to reimbursement under either Medicaid or Medicare.

Despite the fact that New York was not able to broaden the funding base for the program, it is viewed favorably by physicians in the state. It is believed that hospitals can spread the cost of risk more evenly than physicians, and the greater burden on hospitals is viewed as providing greater incentives for improved risk management. The New York State Department of Insurance has proposed that the level of insurance required of physicians in the program be reduced to $500,000/$1,000,000 and that hospitals be required to provide $1.5 million/$4.5 million in excess coverage for their attending physicians. In addition, the shift to $500,000/$1,000,000 from $1 million/$3 million is estimated to reduce the premium by 25 to 30 percent.

Another alternative that has been discussed is to subsidize the JUA, or residual policy market. Under this approach, premiums for insurance through a JUA are set, and liabilities in excess of premiums and interest income can be funded through assessments on other property and casualty companies in the state. Several states have, in effect, operated in such a manner by holding premium increases down, keeping premiums low, and building up unfunded liabilities that are likely to be imposed on other insurers through assessments.

Limiting the Number of Claims

A second set of options involves moving some liability claims out of the tort system into an insurance system that would compensate victims of certain specified maloccurrences, rather than determine liability on the basis of fault. Several models for such schemes, usually known as designated compensable events plans, have been proposed. Both Virginia and Florida have adopted variants of this system intended to compensate victims of certain neurologically impaired infants. These plans are discussed in Chapter 7.

Limiting the Amount of Awards

One reason that medical malpractice awards in obstetrics are so high is that the awards are expected to cover the full costs of treating the condition for the life of the infant. In periods of inflation, awards may reflect uncertainty concerning the future. To reduce these costs, a proposal was developed by the New York State Department of Insurance to create a separate fund to defray all future medical expenses of medical malpractice victims. The fund would purchase a health policy, and there would be less need to estimate future medical expenses. Payments by defendants would be based on actuarial projections of expected medical costs, with reversion of unused funds to the insurer.

Experience Rating of Physicians for Medical Malpractice

Experience rating of physicians involves charging higher premiums to physicians with the highest claims experience and less to physicians with fewer claims. Currently, several insurers place surcharges on premiums for physicians with poor records, and the Florida Tort Reform and Insurance Act of 1986 requires that ratings reflect the number of surgeries and claims experience of individual physicians.

Other insurers who have tried to implement experience rating report that it presents practical difficulties. St. Paul promoted experience rating in Georgia but discontinued it, concluding that it does not work well in insurance markets with infrequent, severe occurrences. St. Paul relied on closed claims but found the experience reflected in them too old to be useful. It was obviously unfair to rely on open claims data, because a particular claim could be resolved in a physician's favor.

New York State had tried to implement experience rating by a statute enacted in 1985 [N.Y. Insurance Law §2343 (McKinney, 1988)] that required the Insurance Department to promulgate regulations establishing a merit rating plan for physicians. The department subsequently concluded that its experience with merit rating was not satisfactory. Among the problems cited were the opposition of the medical community, particularly high-risk physicians, and the practical problems involved in evaluating claims data.

CONCLUSION

The number and variety of risk management activities and the general efforts to use insurance claims data to diagnose, and ultimately reduce, the risks of obstetrical services are impressive. There are not enough data available to enable the committee to evaluate these efforts on the part of insurers, however. Moreover, because of the differences in the markets and regulatory environments, it seems possible that certain approaches will be effective in some states but not in others.

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7

The Legal System: The Committee's Findings and Proposals for Change

The committee spent considerable time studying, evaluating, and discussing various proposed solutions to the professional liability crisis in obstetrics. Its recommendations for reforming the legal system were guided by its findings, set forth in detail in this report, that the professional liability problem is decreasing the availability of and access to obstetrical care, changing the practice of obstetrics, affecting the education of future obstetricians, damaging the physician-patient relationship, and increasing the costs of obstetrical care.

In examining the traditional tort litigation system for adjudicating medical malpractice claims, the committee was mindful that the problems related to the growth in medical malpractice litigation are part of an overall growth in certain kinds of tort liability lawsuits, coupled with increases in some types of jury awards and settlements. Moreover, many observers believe that the growth in litigation has engendered a general insurance crisis, which has manifested itself in sharp increases in premiums for liability insurance and, in certain situations, diminished availability or absolute withdrawal of coverage.

Medical malpractice litigation is undeniably part of this broader phenomenon and shares many of its characteristics; but it is also a unique problem, separable from tort litigation in general. The committee evaluated tort reforms and the various alternatives to traditional tort litigation with a view to alleviating the problems related to medical professional liability issues in obstetrics. The committee suspects that some of its recommendations may also apply to medical professional liability in general.

THE TORT SYSTEM

Tort law is the branch of law allowing victims of legal wrongs to seek compensation from responsible parties through the judicial system. The tort system—including the law of medical liability—has a number of goals. Foremost among these are deterrence of unreasonably dangerous activity, whether intentional or negligent, and compensation of the victims of such activity. The other goals of the system are that it provide compensation expeditiously, that the threat of liability not deter beneficial conduct, and that both claimants and those who are subject to the threat of liability have confidence that the underlying legal rules and their manner of application are just.

Although there may reasonably be debate about whether medical professional liability law achieves its goal of deterring unreasonably dangerous activity, it is the committee's conclusion that the medical professional liability system is performing the remainder of its mission inadequately.

Compensation is provided to victims only after considerable delay (GAO, 1987a); the threat of liability is having far-reaching and severe effects on access to and availability of obstetrical care; medically inadvisable procedures are being overused, largely because of the threat of liability if they are not so used; and health care providers, traditionally ambivalent about medical liability, now believe this body of law to be arbitrary and unfair in the extreme.

For all these reasons, the committee believes that it is appropriate for the law to explore new approaches for the resolution of medical malpractice claims. A variety of approaches is available and should be explored; the committee believes that three in particular have enough promise to warrant limited implementation.

Tort Reforms: The Committee's Findings

Tort law in the United States is based largely on common law, a body of legal principles developed on a case-by-case basis by judges, primarily in state courts. Since the 1970s, every state except West Virginia has enacted some legislation modifying common-law tort doctrine that is intended to relieve the medical liability crisis, and many are discussing additional reforms. These tort reforms were designed to moderate the frequency and severity of medical malpractice claims filed in order to control the cost and ensure the availability of professional liability insurance.

The committee studied these tort reforms, many of which apply only to the area of medical malpractice. In addition, these reforms have been evaluated in several studies. Each of these studies was also reviewed by the committee. A particularly thorough analysis of various tort reforms is found in the *Report of the Task Force on Medical Liability and Malpractice* by the Department of Health and Human Services (USDHHS, 1987). Table 7.1 lists the kinds of tort reforms that have been enacted by state legislatures in the last 10 years.

After evaluating the reforms, the committee concluded that only a modest reduction in medical malpractice claim frequency and size of awards has been achieved. The limited effectiveness of tort reform can be perceived from the data presented in Chapters 2 through 5 of this report on the continuing problems of access to and delivery of health care generated by the medical malpractice problem. Moreover, the committee concluded that the many deleterious side effects of the tort system for resolving obstetrical claims—resulting in distortions of health care delivery patterns—have not been reduced by those tort reforms.

The committee reviewed three studies that examine the effects of the tort reforms implemented by various states. In a 1982 study Patricia Danzon examined the impact of several post-1975 tort reforms on the frequency of medical malpractice claims per capita, the amount per paid claim, and the claim cost per capita (the product of amount per paid claim and frequency of paid claims per capita). The data base included claims closed from 1975 to 1978 by all insurance companies writing malpractice insurance premiums of $1 million or more in any year since 1970. No significant effects on frequency of claims or amount of awards were found from voluntary or mandatory pretrial screening panels, arbitration, restrictions on informed consent, restrictions on the use of res ipsa loquitur (a doctrine of presuming liability in certain circumstances), or periodic payment of future damages. The only two reforms found by Danzon to have a substantial impact affected the size of awards—namely, caps on attorneys' fees, which lowered the amount of awards 19 percent in the two years after implementation, and the mandated consideration of collateral sources when determining awards, which led to 50 percent lower awards in two years (Danzon, 1982).

In their 1983 study Danzon and Lillard used data from medical malpractice claims closed in 1974 and 1976 to examine the impact of states' modifying the collateral source rule, limiting the attorneys' fees of plaintiffs, and limiting malpractice awards. Malpractice claims included in the study were thought to be broadly representative of claims against physicians and hospitals. The study tentatively concluded that

TABLE 7.1 Status of State Tort Reforms as of July 1985

Tort reform provisions	AL	AK	AZ	AR	CA	CO	CT	DE	FL	GA	HI	ID	IL	IN	IA	KS	KY	LA	ME	MD	MA	MI	MN	MS	MO
Ad damnum	1	1	1	1	1	1	1		1	1	1		1	2	1	1	1	2	1	1	1			1	1
Arbitration	1	1			1				1	1			1						5			2			
Attorney fees			1		2	1		1	1		1	5	1			1				1		1			
Awarding costs				1					1				1			1					2				
Collateral source		1	2		2		1	1	2			5	1		2	1									
Expert witness								1	1			2	1					1							
Limits on liability					2							5	3	2			4	1							
Patient compensation fund						6			6		5		6	2		1	3	2							
Periodic payment	1	1		1	2			1	1				1	1		1		1		1		1			
Pretrial screening panel		1	2	1			1	1	3		1	1	1	2		1		2	1	1	2				3
Res ipsa loquitur		1			1			1	1				1												
Statute of limitations	2		1	1	1	2		1	1	1	1		2	2	1	2	1	1	1	1	1	1	1	1	1
Special statute of limitations for minors	2		3	1	1	1		1						2		1		1		1	1			1	
Standards of care	2	2	1	1				1	1	1		2						1				1			

Tort reform provisions	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY
Ad damnum		1		4		1	1	1		1				1			1	1	1			1		1	3
Arbitration									5	1									1	1	1				
Attorney fees		2	1	3	1		1				1	1	4	5			1		1			1		1	1
Awarding costs		1		4			1	1					5	5		1									
Collateral source		2	1	3			5		3	1			3	1		1	1		1			1			
Expert witness			1	3					4	2	1						1				1				
Limits on liability		2		3		1			3	1		1			1	1		1			1			1	
Patient compensation fund		2				1		1	4			1	1		1									1	6
Periodic payment				3		1	1		4			1			1							1		2	
Pretrial screening panel	2	2	1	1	2	1	1		5	2			3	5			5		1		1			2	
Res ipsa loquitur			1	4					3		1			1			1	1							
Statute of limitations	1	1	1	3		1	1	1	1	1	1	1		1	1	1	2	1	2			1		1	1
Special statute of limitations for minors				3		1	1	1		3				5		1		3	1					1	1
Standards of care		1	1	4				1	4		1	1					1			1	1	2			

NOTES: 1, provision exists; 2, provision found constitutional by highest state court; 3, provision found unconstitutional by highest state court; 4, provision not severable from an act found unconstitutional by highest state court; 5, provision repealed or allowed to expire; 6, provision exists in statute but not implemented.

SOURCE: General Accounting Office, U.S. Congress. 1986. Medical Malpractice: No Agreement on the Problems or Solutions. GAO/HRD-86-50. Gaithersburg, Md.

limits on attorneys' contingent fees reduced the size of settlements by 9 percent, reduced the percentage of cases litigated to verdict by 1.5 percent, and increased the percentage of cases dropped by 5 percent. Limits on awards reduced the size of potential verdicts by 42 percent and reduced the size of settlements by 34 percent. Modification of the collateral source rule reduced the size of awards by only a very low percentage (Danzon and Lillard, 1983).

In a 1985 study Sloan examined the impact of several tort reforms on the levels and rates of change in medical malpractice insurance premiums paid from 1974 through 1978 by general practitioners who do not perform surgery, ophthalmologists, and orthopedic surgeons. Of the tort reforms studied, only mandatory use of pretrial screening panels had a statistically significant correlation with lower malpractice insurance premiums.

In her most recent, and comprehensive, examination of the medical liability issue, Danzon concluded that

> of the tort reforms adopted in response to that crisis [the early 1970s], caps on awards and mandatory offset of collateral compensation appear to have slowed the growth in awards in states enacting such changes. But country wide, awards have continued to outpace the rate of inflation. Moreover, although claim frequency tapered off in 1976–77, this can apparently not be attributed to the tort reforms, and since 1978 the upward trend has resumed, although at a slower pace than in the early seventies (1985, p. 225).

A General Accounting Office (GAO) study concluded that tort reforms now in effect have had little impact on the professional liability problem. The study concluded that, despite the many legislative modifications of the tort system since the mid-1970s, "the frequency of claims and the size of awards and settlements, for the most part, have continued to increase" (GAO, 1987b). In addition, the GAO surveyed 54 organizations regarding their perceptions of the impact of 14 tort reforms cited in the AMA *State Health Legislation Reports* on issues related to professional liability. There was no consensus among the six interest groups (providers, hospital affiliates, insurers, lawyers, consumers, and health insurers) that any of the tort reforms included in the questionnaire had had a major impact. A majority of health care providers believed that caps on awards have had a major impact on decreasing the size of awards and settlements and that periodic payment of awards has had a major impact on decreasing insurers' total cash outlay for awards or settlements. A majority of consumers believed that pretrial screening panels have had a major impact on decreasing the time required to close claims and on decreasing the number of claims that go to trial.

The committee concluded that, even in cases where tort reforms have achieved the limited objective of reducing the size of awards, they have not lessened the tort system's negative impact on the delivery of obstetrical care nor have they increased providers' confidence in the system.

Tort Reform: The Committee's Recommendations

The committee believes that the problems created by medical professional liability issues in obstetrics represent a serious threat to the delivery of obstetrical care in this nation. It is the committee's conclusion that, although some of the tort reforms already in place have merit, they do not appear sufficient to stem the exodus of obstetrical providers from the profession or to solve the attendant problems caused by the current professional liability climate in obstetrics. Accordingly, the committee makes additional recommendations.

The committee was impressed by certain promising alternatives to the civil justice system that have appeared repeatedly in the literature over the past 10 years. However, the committee was equally struck by the fact that these examples of legal technology have, for the most part, been debated only as theory. There has been almost no practical experience with them. Accordingly, there is no data base for measuring the costs of these alternatives, the volume of claims that would be made under these regimes, or their effectiveness in efficiently and fairly resolving medical malpractice claims.

On the basis of its findings—that the costs of the current system in terms of impaired obstetrical care are great, that tort reforms are so far largely ineffective, and that data evaluating the merits of proposed alternatives to the tort system are lacking—the committee concludes that *state legislatures should not focus on further reform efforts within the existing tort system but should instead redirect their energies toward developing alternatives to the traditional tort system for resolving medical malpractice claims and toward implementing these alternatives in certain circumstances.*

After extensive study of several proposals for alternative systems for resolving medical malpractice claims, the committee recommends that states consider three proposals for further research and implementation on a limited basis: the no-fault designated compensable events scheme (including the variants that have been enacted in Virginia and Florida to provide no-fault compensation for certain neurologically impaired infants), the AMA–Specialty Society's fault-based administrative system, and legislation authorizing the use of contractually determined legal relationships governing medical professional liability between providers and patients.

The committee recognizes that other groups, such as the American Law Institute, are also developing proposals for alternative systems for resolving medical malpractice claims. In addition, the medical malpractice program of the Robert Wood Johnson Foundation has funded a number of studies to produce data relevant to professional liability policy and its reform that could be useful to medical and legal policymakers. After examining the available literature, however, the committee thought that the three proposals that it ultimately commends to states for further evaluation are more fully developed at this time.

Although the committee recognizes that each state must independently assess its own professional liability situation and evaluate various solutions in relation to its own needs, the committee believes that the federal government has a responsibility to encourage states to solve the problems associated with professional liability issues in obstetrics, to assist them in these efforts, and to coordinate the task nationally. Accordingly, *the committee recommends that the federal government provide challenge grants for DHHS-administered demonstration projects to finance studies of proposed legislation and to begin pilot projects for limited implementation of various solutions.*

ALTERNATIVES TO THE TORT SYSTEM

No-Fault Compensation for Certain Events

No-fault compensation for medical malpractice injuries refers to a method for compensating victims of medical maloccurrence without making the costly determination of fault. The major problem with a pure no-fault system is the difficulty of distinguishing between adverse outcomes due to medical interventions and those resulting from an underlying condition. In addition, the problems of disciplining physicians would have to be dealt with separately. Since most illness can be associated with medical decision making in some way, a pure no-fault system could de facto become a system of unlimited universal health insurance. The potential cost of such a system could be high. With these concerns in mind, current proponents of no-fault insurance for medical injuries do not contemplate total displacement of the fault system but seek to provide automatic compensation for a certain subset of designated compensable events (DCEs).

A DCE system would operate much the same way as compensation for workplace injuries under the workers' compensation system. It would rely on a listing of medical injuries (DCEs), including those associated with negligence and those not, all of which would be compensated without regard to fault. Injuries not on the DCE list would continue to be litigated through the tort liability system. Under such a system, physicians would be required to carry both DCE and tort liability insurance. Proponents of this system believe that the total cost of both would be less than the cost of premiums under the current system (Havighurst and Tancredi, 1984). The birth-related neurological injury compensation legislation enacted recently in Virginia and Florida and the federal Childhood Vaccine Injury Compensation Act are examples of limited DCE systems. Because birth-related neurological injury compensation legislation is a variant of the DCE system that relates specifically to obstetrical professional liability, a description of the Virginia act [Va. Code Ann. 38.2-5000 to -5021 (Supp. 1987)] follows.

In theory, a DCE system could be designed to encompass a range of compensable injuries and could, if a broad category of injuries were included, potentially be far more extensive in scope than even the traditional tort system. For example, one study, discussed below, estimated that only 17 percent of the potentially compensable events that occur in hospitals result in tort compensation (Mills, 1978). Danzon (1985), however, suggests that the reverse is likely to be true. She predicts that the number of well-defined adverse medical outcomes on which experts will agree were caused by negligence will constitute only a fraction of current claims. Further, parties may disagree, and perhaps even litigate, over the issue of whether a particular injury belongs in the DCE system or in the tort system. A full DCE system that compensated close to 100 percent of these injuries could either raise the overall cost of providing compensation or require a reduction in the amount of compensation payable to any given patient.

Any potential cost savings would, of course, be dependent on the amount and character of compensation provided. Each state considering such a system must decide whether minimum or maximum payments for loss of wages would be provided, whether an allowance would be made for pain and suffering, and whether collateral sources of compensation would be offset. To achieve substantial cost savings, it would be necessary to limit compensation under the DCE system, either by establishing a compensation schedule, by limiting compensation to direct medical expenses, or by covering economic losses only.

A cause-based DCE standard could be difficult to apply. The greatest costs of the current system lie not only in determining fault but also in determining what "caused" a patient's injury or disease. Under a DCE system, the task of separating compensable injuries from noncompensable, previously existing conditions and their natural progressions on a case-by-case basis could prove difficult and expensive. Moreover, unless the list of compensable events were sufficiently detailed to afford compensation for most injuries in the categories in question, the right to sue for events not on the DCE list would probably need to be preserved.

Cause-based no-fault compensation for medical maloccurrence has been implemented in a number of countries, including Sweden and New Zealand. New Zealand adopted a general scheme of no-fault compensation for accidents in 1974. The principle underlying the scheme is that the community has a responsibility to protect all citizens from losses sustained through personal injury caused by accidents occurring in employment, in motor vehicles, and from other sources, including "medical, surgical, dental or first aid misadventure" (Smith, 1982). This definition excludes losses that result from disease, infection, or the aging process. It embraces medical errors and failure to observe the reasonable standard of care, but it does not include maloccurrence resulting from the omission of treatment (Vennell, 1987). Despite the fact that the fund has encountered financial problems, it has widespread public support in New Zealand.

Sweden enacted a scheme of no-fault compensation for medical accidents in 1975. In 1978 an additional scheme to provide compensation for injuries resulting from drugs was introduced. The Swedish system provides compensation for loss of earnings, loss or impairment of a bodily function, pain and suffering, and medical costs. Payments are intended to match the compensation that would have resulted under tort law. The scheme attempts to limit recovery to injuries that are directly linked to medical intervention. Disciplinary measures against physicians are handled separately. The average cost of paid claims appears to be low under this system; however, in interpreting these figures it is important to recognize that Sweden has generous social security measures that defray the major part of direct medical expenses (Oldertz, 1987).

The Centre for Socio-Legal Studies in Oxford, England, and the King's Fund Institute in London recently recommended that Britain move toward a cause-based no-fault compensation scheme for medical injuries similar to the two models above (King's Fund Institute and Centre for Socio-Legal Studies, 1988). The King's Fund estimates that in Britain a no-fault system would reduce the costs of compensating medical injuries by as much as £25 million a year—this in a nation that already has a national health insurance scheme.

The critical issues with any DCE system or no-fault compensation program are how many claims will be brought and what the per capita administrative costs will be. The committee found very little data on these issues. The Swedish system generates about 60 claims per 100,000 persons from all health care contacts, mostly from injuries occurring in hospitals. Fifty percent of these claims are paid, averaging $6,000 per claim. It is estimated that administrative costs for this system average 15 percent (King's Fund, 1988). However, before any inferences are drawn from the Swedish experience, it must be reiterated that Sweden has a generous social security system that has no parallel in the United States.

The only U.S. study of the number of injuries resulting from medical maloccurrence that might be compensated under a no-fault system was commissioned by the California Medical Association and the California Hospital Association in 1977. A team of medical and legal experts examined 20,864 inpatient charts from 23 California hospitals to identify injuries that could potentially be compensable. The study found that 4.65 percent of all hospital inpatient stays (970 cases) resulted in injuries that were potentially compensable under a no-fault regime. Of these cases, it was estimated that 17 percent may have resulted from negligence. The study concluded that 1 in 20 hospital inpatients suffers a potentially compensable injury, and 1 in 125 has a legal claim under the present tort system (Mills, 1978). The California study examined only one state, however, and did not examine trends.

The Harvard Medical Practice Study Group is conducting a similar study of the hospital records of 30,000 patients in New York State hospitals in 1984. The research is specifically designed to cast light on the critical questions related to no-fault compensation. It will examine the incidence of adverse results and the extent of negligence. A companion survey of affected patients will ascertain the consequences of adverse events, including the medical and other costs incurred and whether the event led to subsequent tort or disciplinary proceedings. The study also includes an econometric evaluation of the deterrent effect of medical malpractice liability. The group's final report is expected in 1989.

Other research on DCE systems is currently in progress. Under the sponsorship of the Robert Wood Johnson Foundation, research on no-fault medical injury compensation is currently being conducted as a joint effort of the University of Texas Health Science Center at Houston and the Urban Institute in Washington, D.C. This project, called No-Fault for Medical Malpractice: Moving to the Third Generation of Development, is in the data collection stage. The first and second generations of no-fault research were concerned with conceptualizing no-fault systems and developing DCEs, respectively. The third generation will attempt to establish the extent to which medical records as currently maintained are useful for finding and categorizing injuries (Tancredi, 1986). The committee is of the view that when these additional data are generated, it will be easier to evaluate the effectiveness of a DCE system.

Virginia's Compensation System for Birth-Related Injuries: A Case Study of DCE

No-fault compensation for certain birth-related neurological injuries is a variant of a DCE system. The Virginia Birth-Related Neurological Injury Compensation Act is the nation's first no-fault scheme of its kind: it is both the first no-fault compensation bill dealing with medical injuries related to professional liability and the first time a state medical society has endorsed a no-fault solution to the medical professional liability problem. Florida enacted a slightly different version of the Virginia act, the Florida Birth-Related Neurological Injury Compensation Plan, in February 1988.

The Virginia act, which took effect on January 1, 1988, is intended to make professional liability insurance for obstetrician-gynecologists both available and affordable by taking claims for certain catastrophically injured newborns out of the civil justice system. It is also intended to provide quicker compensation for injury and to increase access to obstetrical care for medically underserved women.

The Virginia act sets up a program that compensates only those infants with injuries that meet the statutory definition of a compensable injury and provides that those infants may seek remedy solely from the act's compensation program. The statutory definition of eligible infants under the Virginia act is extremely narrow: it covers only those infants suffering "injury to the brain or spinal cord caused by the deprivation of oxygen or mechanical injury occurring in the course of labor, delivery, or resuscitation in the immediate post-delivery period in a hospital which renders the infant permanently non-ambulatory, aphasic, incontinent, and in need of assistance in all phases of daily living." It is estimated that only 40 infants per year in the state of Virginia will meet these criteria. The Virginia act expressly excludes from coverage all congenital and genetic abnormalities and applies only to live births.

To qualify for compensation under the act, an infant must be delivered in a hospital that participates in the program and by a physician who participates in the program. It has been argued that this could result in unfair treatment of similarly situated infants. Further, concern has been expressed about the lack of any provision in the act for informing prospective mothers as to whether a physician or hospital participates in the program.

The program is modeled after workers' compensation programs and is administered by the Industrial Commission of Virginia, an existing bureaucracy that adjudicates workers' compensation claims. It is a pay-as-you-go system in which the infant is awarded expenses for lifetime medical, hospital, rehabilitative, and custodial care that are not covered by collateral sources (except to the extent prohibited by federal law), in addition to living expenses until the age of 18 at a predetermined rate. There is no provision for recovery of noneconomic or punitive damages under the Virginia act. By contrast, the Florida Birth-Related Neurological Injury Compensation Plan includes a provision allowing payment of an award no greater than $100,000 to the parent of an infant granted an award under its program [1988 Fla. Laws 60–75, ch. 88–1].

The Virginia act is funded by an annual assessment of $250 per licensed physician, regardless of specialty; voluntary assessments of $5,000 per participant physician; and $50 per delivery for participating hospitals, not to exceed $150,000 in any 12-month period. If the fund's reserves dip too low, the state is empowered to levy annual assessments on the liability insurance carriers in the state. The funding mechanism of the Virginia act has aroused considerable dissatisfaction among physicians and liability insurers regarding both the mandatory and voluntary assessments. However, the Attorney General of Virginia issued an opinion on August 26, 1988, stating that the mandatory $250 assessment on physicians does not violate the Equal Protection Clause of the Constitution.

The Virginia act provides that any participating physician must assist in developing a plan to provide obstetrical care to patients eligible for medical assistance services and to indigent patients. The rationale behind this provision is that, in return for reducing the risk of practice for obstetricians, the state asks them to contribute something to the system by increasing the amount of care that they provide to indigent patients. However, because the plan does not include a specific obligation to serve indigent patients, the indigent care provision of the Virginia act has been criticized as insufficient.

In light of these potential difficulties with the Virginia act as adopted, the committee believes that states considering similar no-fault legislation to compensate neurologically impaired infants should consider certain modifications. These modifications are set forth in Appendix G.

The AMA–Specialty Society Medical Liability Project

The AMA and 32 national medical specialty organizations have advanced a radical proposal to resolve medical malpractice claims (AMA–Specialty Society, 1988). The proposal calls for a fault-based administrative system, under the jurisdiction of strengthened state medical boards or new state agencies, that would totally replace the existing court and jury system for resolving medical malpractice claims.

The AMA–Specialty Society Project advance their proposal as one of several possible alternatives to the tort system to be considered by the states. Because the proposal is described in detail in an article by Carter G. Phillips and Elizabeth Esty in the companion volume of this report (Phillips and Esty, 1989), what follows is only a very brief summary.

The proposal has three basic parts: (1) a claims resolution function; (2) a credentialing and disciplinary process; and (3) a codification of the legal elements of medical liability. All three components are to be administered by a revamped state medical board or by a new state agency.

Claims Resolution Function

Medical malpractice complaints would be submitted to an administrative agency, where they would be screened by experienced claims reviewers with the authority to examine medical records and to interview the parties. It is anticipated that a significant number of claims would be settled or dismissed at this stage. Any claimant who wished legal representation would be provided with a lawyer from the agency's office of general counsel at no charge to the claimant at this stage. Any claim not settled would be assigned to a hearing examiner with broad authority to conduct a full and prompt hearing on the merits of the claim.

Proponents of the system expect that reviewers and examiners will be better able than a jury to evaluate medical negligence claims and to produce consistent liability determinations and damage awards. It is also hoped that claims will be resolved faster than in the current system, thereby saving both plaintiffs and defendants the substantial expense incurred in litigating cases for years in a state court.

Credentialing and Disciplinary Functions

All settlements and awards would be reported to the investigative branch of the agency for comparison with other malpractice or disciplinary reports to determine if a pattern of substandard conduct exists. In addition, all health care entities would be required to conduct periodic assessments of physician performance and to report to the board any conclusion that a physician's overall performance has been substandard. Insurers would be required to report policy cancellations and failures to renew for reasons related to competence. All of this information would be maintained in a clearinghouse accessible to persons who conduct professional review activities. Certain credentialing agencies, such as hospitals, would be required to check with the clearinghouse on a regular basis.

Codification of the Legal Elements of Medical Liability

The proposal recommends specific changes in the standards for imposing liability and the codification of those changes by statute in each state in which the system is enacted. The standard of care based on custom and locality would be abolished in favor of a standard that focuses on whether the challenged actions fall within a range of reasonableness, to be determined by reference to the standards of a prudent and competent practitioner in the same or similar circumstances. Reasonableness would be determined by a range of factors, including the expertise and practice environment of the health care provider, the state of medical knowledge, the availability of facilities, and access to transportation and communications facilities.

Proponents of the proposal anticipate that it would be both fairer and more efficient than the current system. However, because it has never been implemented, it is not possible to evaluate its actual costs or its effectiveness in resolving medical malpractice claims, nor is it possible to compare its costs and effectiveness to the tort system or to other alternatives. The number of claims that would ultimately be brought if this system were implemented is not known. Accordingly, as with the DCE system, it is possible that the number of claims for injuries in the system would increase. Similarly, the actual administrative costs of this system cannot be accurately predicted in advance. It is possible that they would be high. Moreover, the cost of the system would also be dependent on the amount and character of compensation provided.

The AMA–Specialty Society proposal has been criticized for delegating too much regulatory power to the medical profession itself. Although the proposal specifically provides that reviewers and examiners will include nonphysicians, some critics charge that expert review—as opposed to jury trial—is nonetheless fraught with potential conflicts of interest.

Private Contracts

The use of private contracts setting forth the legal rights and responsibilities of health care providers and patients and stipulating arrangements to resolve disputes is another alternative to resolving medical malpractice claims. This solution would not necessarily require legislative change.

The advantage of this approach is that it allows both consumers and providers greater freedom of choice regarding the rules governing their legal relationship (Epstein, 1976). They can choose any set of recovery rules to govern compensation, or procedures to determine compensation, for injury occurring during the course of medical treatment. One potential disadvantage is that it assumes that consumers understand the health care system in great detail, understand the risks involved, and know their own risk preferences. It is not clear that all health care consumers, particularly those suffering an illness, are capable of informed bargaining. However, if a system were structured to provide consumers with incentives for informing themselves, it is possible that individual contracting for medical risks could gain acceptance (Havighurst, 1986).

The theoretical justification for regulating medical malpractice claims by contract has been argued by Richard A. Epstein of the University of Chicago Law School (Epstein, 1976) and is presented in the companion volume of this report (Epstein, 1989). As a practical matter, the mechanism is quite simple: consumers and providers of health care may enter into contracts specifying the rules that apply in the event of medical malpractice, maloccurrence, or both. Different consumers can specify different arrangements. Possibilities include waiving the right to a jury trial and agreeing to binding arbitration or some other alternative dispute resolution mechanism; limiting malpractice recovery rights such as noneconomic damages or collateral source payments in exchange for recovery on an agreed fixed schedule; agreeing in advance to the terms of settlement in the event of certain injuries; and agreeing in advance to certain limits on recovery (Epstein, 1976).

Although some committee members believe that current trends in health care delivery offer opportunities for limited implementation of this approach, other members had serious reservations about the implications of adopting it. Those who believe that contract approaches might be salutary in certain circumstances believe that existing procedures for health care contracting between employers and providers and between providers and consumers (such as HMOs) could provide the basis for medical malpractice contracting. Employers, especially large ones, are becoming accustomed to shopping around for innovative health care delivery mechanisms and new arrangements for financing health care. Similarly, consumers are becoming increasingly used to selecting their own health care arrangements from an array of choices. However, this does impose a greater burden on consumers to distinguish among various options.

Other committee members were concerned about possible abuses arising from the use of private contracts to limit the professional liabilities of obstetrical providers. These committee members believed that the approach is unworkable and raised potentially grave ethical issues. They argued that a private contracts approach could be unfair to patients who are not well enough informed about the possible risks of their treatments, or who lack bargaining power to contract effectively, or who may not realize that they are delegating the power to their employer or union to be the contracting agents. Moreover, they argue that many physicians themselves do not understand the legal system well enough to come to reasonable agreement about their liability exposure. Further, it is by no means clear that labor union negotiators, benefits administrators, or hospital administrators could bargain effectively on these issues.

Many experts believe that it is doubtful that the courts would approve such a contractual approach in the absence of prior legislative authorization, at least in cases in which a patient's legal rights seem to be limited rather than expanded. Even though there is considerable experience with arbitration for medical malpractice claims, and this approach has recently received favorable judicial treatment, courts have thus far been unreceptive to situations in which providers have used standard form written contracts to reduce their liability for negligence to individual patients who enter into such contracts immediately prior to treatment [*Tunkl* v. *Regents of the University of California*) 60 Cal. 2d 92, 383 P.2d 441, 32 Cal. Rptr. 33 (1963)]. In cases where employers have negotiated contracts with HMOs to care for employees and agreed to arbitrate malpractice claims that might arise out of future treatment, some courts have been willing to uphold such contractual modifications of tort rights, although others have declared the agreements unconstitutional [see, for example, *Madden* v. *Kaiser Foundation Hospitals,* 17 Cal. 3d 699, 552 P.2d 1178, 131 Cal. Rptr. 822 (1976)]. Accordingly, those committee members who favor limited implementation of contracts believe that it would be beneficial for a state legislature to authorize explicitly the use of contracts between physicians and patients before contracts are relied on, even on an experimental basis.

Economic Damage Guarantee (Moore-Gephardt Proposal)

The Moore-Gephardt proposal for a system of economic damage guarantees is designed to provide health care providers with incentives for voluntarily paying economic damages to injured patients (Moore and O'Connell, 1984). A health care provider facing a medical malpractice claim would have the option of foreclosing such a claim by offering to pay the injured party's net economic loss within a specified period of time. In exchange for the provider's prompt settlement the injured party would forfeit all tort rights, including the right to any noneconomic damages such as loss of consortium or pain and suffering. This proposal also includes a provision for offsetting awards from collateral sources. Under this proposal, if an offer of economic settlement is made, the case is barred from court forever.

A system of economic damage guarantees could be achieved by legislation at the federal or state level or by private contract. Legislation to enact such a system at the federal level (H.R. 3084, the Alternative Medical Liability Act) was introduced in the 99th Congress by W. Henson Moore and Richard Gephardt. Based on extensive academic writing by Jeffrey O'Connell, Moore discusses the system of economic damage guarantees in detail in the companion volume of this report (Moore, 1989).

Proponents of economic damage guarantees argue that settlements under that system would be smaller than under the current system because collateral sources of awards would be offset and noneconomic damages would be eliminated. Patients, it is argued, would find the system attractive because it provides for certain, immediate compensation, unlike the uncertainty provided by the civil justice system.

The committee was not persuaded that the system would provide incentives for more claims to be settled. If the same type and number of claims now being settled were settled under an economic damage guarantee approach, there would be some cost savings because of the elimination of noneconomic damages and collateral source offset. The committee believes, however, that those savings would not necessarily exceed the savings realized from the tort system with limits on noneconomic damages and modification of the collateral source rule.

Social Insurance

Most health care providers whose services are subsidized by the federal government must buy their own medical malpractice insurance. As noted elsewhere in this report, those high insurance costs have effectively compromised the provision of obstetrical care by certain federally subsidized Medicaid programs and Community and Migrant Health Centers. The federal government currently pays approximately 30 percent of the nation's health bill, and the states contribute another 10 percent (HCFA Review, 1986).

Because a social insurance system would address the problem of compensating victims of medical maloccurrence, the committee believes it could greatly reduce the incidence of medical malpractice claims, as it has done in the United Kingdom. A social insurance system would involve a major commitment of resources and a major rethinking of the way in which health care is financed and provided, however. Moreover, whatever deterrent effects third-party medical malpractice insurance does create would be sacrificed. (As noted earlier in this chapter, the extent to which this deterrence function operates remains a matter of debate.)

The committee believes that, in response to a number of factors, including the medical professional liability issue, the financing of health care in the United States is likely to become increasingly a federal responsibility. Accordingly, the committee encourages discussion, debate, and research concerning the implications of these changes for medical professional liability questions.

OTHER NEEDED REFORMS

It is the committee's conclusion that all future reform initiatives by the states should be directed toward replacing the tort system for resolving medical malpractice claims. However, the committee also believes that states should address immediately the disruptions and deterioration in maternity services for the poor that are brought about by professional liability concerns. The committee therefore recommends that the states and the federal government consider the following short-term solutions simultaneously with any efforts to resolve the medical professional liability crisis generally.

Expansion of the National Health Service Corps

After studying the data on the availability of obstetrical providers for publicly insured women, and particularly the effects of medical professional liability on the delivery of obstetrical care in Community and Migrant Health Centers, the committee has concluded that the National Health Service Corps (NHSC) should be significantly expanded and its enacting legislation revised. The NHSC's general scholarship program has been eliminated, and its exceptional financial need scholarship and loan repayment programs are far too constricted to permit recruitment of adequate numbers of health professionals into underserved areas. Congress should reinstate general scholarships, expand the program of scholarships for students with exceptional financial need, and increase the number and variety of loan repayment options.

The committee is generally pleased that over the past two years Congress has placed increased emphasis on recruiting nurse-midwives and other midlevel professionals into the remaining NHSC program. It wishes to emphasize its continued support for this federal effort to attract a maximum number of health professionals to the corps.

Extension of the Federal Tort Claims Act Coverage

Without an explicit waiver of sovereign immunity, the United States cannot be sued. The Federal Tort Claims Act (FTCA) [28 U.S.C.A.

§1346(b) (Supp. 1988)] is a limited waiver of that immunity. Prior to its enactment in 1946, a private bill was required to sue the United States in tort. The need for a private bill was largely obviated by the FTCA. The FTCA permits an injured party to sue the government "under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred" [28 U.S.C. § 1346(b) (Supp. 1988)]. The United States is liable "in the same manner and to the same extent as a private individual under like circumstances" [28 U.S.C. §2674 (Supp. 1988)].

The committee recommends that FTCA coverage or its equivalent be extended to all Community and Migrant Health Centers' personnel and contract providers engaged in obstetrical work. Medical personnel would be covered by the act only for activities related to obstetrical services. The FTCA currently insures all commissioned officers in the Public Health Service Corps, including those NHSC scholarship graduates who assume a commissioned officer position rather than working as civilians in medically underserved areas. The committee believes that this distinction between civilian and commissioned NHSC members is aggravating the problem of providing obstetrical care in health centers and, therefore, recommends that it be eliminated. This is particularly important in the case of obstetrical practices that are not formally part of a health center but that are willing to take clinic patients on referral by Community or Migrant Health Centers. Direct precedent for this reform can be found in the 1988 appropriations law, which extended FTCA coverage to contract providers employed by the Indian Health Service [P.L. 100-102, § 103(c) (1988)]. This amendment provides that any person who is employed by or is a member of a tribal organization and who is fulfilling an Indian Health Service contract is deemed to be part of the Public Health Service contract and therefore is insured against medical malpractice claims.

Liability Coverage for Physicians Providing Public Health Services

The committee noted with interest that Missouri, Hawaii, and Montgomery County, Maryland, have taken actions to reduce the professional liability risk of persons who provide public health services. Missouri's State Legal Expense Fund, effective September 28, 1987 [Mo. Ann. Stat. § 105.711 (Vernon, 1988)] covers claims against physicians for negligence in treating conditions caused by pregnancy and delivery and in treating children, when the physician's services are rendered without compensation or minimal compensation, including care of Medicaid patients, pursuant to an agreement with a city, county, or city-county health department. The Legal Expense Fund pays damages to the extent allowed under the state's medical malpractice law. The act specifically provides that the physician's personal professional liability insurance shall not be considered available to pay claims covered by the act. The act limits noneconomic damages to $350,000 per occurrence, per defendant.

As a temporary measure until a permanent solution can be implemented, obstetricians performing deliveries for indigent women in Montgomery County, Maryland, hospitals will be indemnified against any suits brought by these patients. Under this program, which became effective on October 1, 1988, obstetricians become county employees when they perform such deliveries, which number approximately 1,200 per year. They are paid from a special fund provided by the county, supplemented by Medicaid payments. The plan provides a cap of $500,000 on recoveries.

The committee is encouraged by these efforts on the part of state and local legislatures to address the disruptions in publicly financed care caused by professional liability issues and encourages other states to consider similar efforts. At the same time, the committee believes that such solutions address only one symptom of the problem, namely, physicians' reluctance to provide publicly funded care. They do not address the problems inherent in resolving medical malpractice claims through the tort system.

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8

Principal Findings and Recommendations

After examining all the available evidence, the committee concluded that there is indeed a medical professional liability crisis and that it is adversely affecting the delivery of obstetrical care in this nation (especially for poor women, rural women, and high-risk women); compromising the therapeutic value of the provider-patient relationship; altering the types of obstetrical care given, often without medical justification; and adding to the costs of obstetrical care. While confident in drawing these conclusions, the committee also recognizes that professional liability concerns are but one of many forces altering the way in which health care is delivered in the United States.

A substantial body of data exists on various aspects of the professional liability problem, including repeated surveys of obstetrical providers over a period of almost 10 years. These data are incomplete and tend to be flawed by methodological shortcomings, such as skewed samples, heavy reliance on physician self-reports, and poorly worded questions, which compromised the committee's ability to draw conclusions about some areas of concern. Taken as a whole, however, the data consistently suggest that obstetrical providers are limiting their practice in ways that diminish access to care, particularly for poor women, and changing their practice in response to professional liability concerns.

PRINCIPAL FINDINGS

Medical Malpractice Insurance Trends and Their Implications

1. *Greater frequency and severity of claims.* The data available to the committee suggest that claims arising out of obstetrical practice are, on average, both more numerous and more severe than claims relating to other medical specialties. Although the data suggest that this has been true for many years, the recent increases for obstetrics appear to be greater than for other groups (Chapters 1 and 6).

2. *Obstetrician-gynecologists' increases in premiums.* All physicians in the United States have been faced with rising costs of professional liability insurance in the 1980s, but available data suggest that obstetrician-gynecologists have experienced the greatest rate increases (Chapter 6).

3. *Premium increases for family physicians practicing obstetrics.* The committee found no systematic surveys of either insurance company policy with regard to family practice or the risk experience of family physicians. The data available indicate that family physicians who include obstetrics in their practice experienced greater than average increases in medical professional liability insurance premiums (Chapter 6).

4. *Nurse-midwives' substantial increases in premiums.* Although the data on nurse-midwives are scarce, the committee concluded that nurse-midwives have faced increases in medical professional liability insurance premiums that appear to exceed their claims experience. Despite their historically low rate of being sued, premiums for nurse-midwives have increased substantially in the 1980s. The committee also noted that nurse-midwives pay proportionately more in insurance premiums (approximately 14 percent of their gross income) than obstetrician-gynecologists (10 percent) or family and general practitioners (4 percent) (Chapter 6).

5. *Affordability of professional liability insurance.* The committee found a consensus that the crisis of availability of medical professional liability insurance for physicians in the mid-1970s was largely addressed by the appearance of physician-owned companies, joint underwriting associations, and the conversion to claims-made policies. There is, however, continued concern in most quarters about the availability of medical professional liability insurance for nurse-midwives and about the affordability of medical professional liability insurance premiums (Chapter 6).

6. *Inconclusive data on the economic burden of premiums.* Although providers often cite affordability of medical malpractice insurance premiums as a major concern, the committee concluded that it was difficult to determine whether the premiums constitute a real economic burden for obstetrical providers. Data suggest that obstetrician-gynecologists as a group appear to have maintained their average net real income during the decade between 1975 and 1985. However, the committee notes that these national statistics may mask important variations among obstetrical providers in various geographical regions and practice settings and with different levels of experience (Chapter 6).

7. *Rising premiums linked to increased fees.* The evidence available to the committee suggests that, to compensate for rising medical malpractice insurance premiums, fees for obstetrical services have been increased, but not by as much as premiums. Moreover, defensive medical services undertaken, at least in part, to protect providers against professional liability claims have also added to the cost of obstetrical care (Chapter 6).

8. *Insurance industry underwriting practices.* In its limited inquiry of the matter, the committee did not find support for claims that excessive profit taking on the part of the medical malpractice insurance industry has been a major contributor to the medical professional liability problem in obstetrics. Studies examined by the committee suggest that the principal factors in the growth of medical professional liability premiums appear to be increased frequency and severity of claims and lower interest rates, which have reduced insurers' investment income (Chapter 6).

9. *Insurers increasing risk management activities.* The committee found a variety of efforts by insurers to use their information bases to identify high-risk areas and to encourage more effective or appropriate methods of managing the risks of obstetrical care. Some efforts have taken place in commercial insurance companies, but more have been initiated in physician- and hospital-sponsored organizations (Chapter 6).

10. *Proposals for altering the medical professional liability insurance system.* Several proposals have been advanced in the last decade to address the medical professional liability problem by altering the practices of medical malpractice insurers. The committee found that, although there has been some limited experience with these proposals in certain states, there is not yet enough experience or data to enable it to recommend any of these proposals for nationwide adoption (Chapter 6). This is an area that deserves further study.

Effects of Professional Liability Concerns on Access to Care

11. *Limitation of obstetrical practice.* Obstetrician-gynecologists and family physicians increasingly report that they are eliminating the obstetrical component of their practices or reducing care to identifiable high-risk women because of professional liability concerns, whether the cost of medical professional liability insurance or the fear of being sued. The data also suggest a trend among obstetrical providers toward limiting or eliminating obstetrical practice earlier in their careers because of professional liability concerns (Chapter 3).

12. *Effect of reduced care of high-risk women.* The committee found that, whereas reduced availability of care for high-risk patients may affect the entire population, it particularly affects low-income women, who are disproportionately represented among the high-risk group (Chapter 3).

13. *Elimination of obstetrical practice.* Available data indicate that more family practitioners are dropping obstetrical care altogether because of professional liability concerns (Chapter 3).

14. *Nurse-midwifery adversely affected.* The committee found that the problems associated with the rising cost and diminished availability of professional liability insurance have changed the organization of nurse-midwifery practice, changed the ways in which nurse-midwives practice their profession, and curtailed opportunities for nurse-midwives (Chapter 3).

15. *Severely reduced availability of obstetrical care in rural areas.* The committee found that the delivery of obstetrical services in rural areas is adversely affected by family physicians' eliminating their obstetrical practice. It is estimated that the number of obstetrical providers in nonmetropolitan areas has fallen by approximately 20 percent over the past five years (Chapter 3).

16. *Reduced care of Medicaid recipients and other poor women.* Available data suggest that the cost of obstetrical liability insurance is exacerbating the already low Medicaid participation by obstetrical providers in most jurisdictions. In addition, the committee found considerable anecdotal material suggesting that providers fear that poor women are more litigious than other women, a claim not supported by the available data. The committee is persuaded that the effects of professional liability concerns in obstetrics are being acutely felt by low-income women and women whose obstetrical care is financed by Medicaid or provided by Community Health Centers or Migrant Health Centers (Chapter 4).

17. *Obstetrical services at health centers threatened.* The committee found that professional liability concerns have reduced the ability of nearly every Community or Migrant Health Center studied to provide or purchase necessary services for pregnant women. Centers reported that the cost and availability of insurance compelled them to limit the obstetrical services that they offered and sometimes to rely on inexperienced physicians (Chapter 4).

Effects of Professional Liability Concerns on the Practice of Obstetrics

18. *Some changes benefiting patients.* The committee believes that many of the changes in the way that obstetrics is practiced in the United States have benefited patients. In particular, the committee noted reports that physicians have improved their recordkeeping, increased appropriate diagnostic testing, increased discussion with patients, increased their use of informed-consent documentation, and given greater attention to their relationships with their patients (Chapter 5).

19. *Increased cesarean section rate.* The committee studied data documenting the rise in cesarean deliveries and found that concerns about medical professional liability and excessive reliance on electronic fetal monitoring (EFM) are among the many factors affecting the rising rate (Chapter 5).

20. *Continued use of electronic fetal monitoring.* The committee reviewed data relating to the effectiveness of EFM and found that it has not improved overall obstetrical outcomes but has increased the overall costs of obstetrical care. It appears, moreover, that liability concerns, particularly fear of being sued when an infant exhibits brain damage, are at least partly behind the continued use of EFM. The committee found that virtually no technology assessment preceded the diffusion of EFM: by the time the results of the first technology assessments of EFM were published in 1979, nearly half of all deliveries in the United States were being monitored electronically (Chapter 5).

21. *Cerebral palsy not strongly linked to birth events.* Brain damage of an infant is the most frequent allegation in obstetrical malpractice claims and constitutes a disproportionately high percentage of obstetrical malpractice payments. Cerebral palsy is one of the more common and distressing forms of infant brain damage. The committee reviewed a large number of studies which concluded that factors of labor and delivery play a relatively small role in cerebral palsy. These studies suggested that medical science is not able to determine the cause or causes of most cerebral palsy and that no single cause is implicated. The

committee also concluded that EFM has not proven effective in identifying or preventing cerebral palsy cases (Chapter 5).

22. *Training of residents modified.* Many respondents to an informal survey of chairmen of departments of obstetrics and gynecology report that medical professional liability concerns are having an adverse effect on the training of new obstetrical residents. They report that the current legal climate makes it difficult to provide residents with appropriate responsibility and that the cost of medical malpractice insurance for obstetricians is impeding the ability of academic medical centers to hire obstetrical faculty (Chapter 5).

Effects of Professional Liability Concerns on the Physician-Patient Relationship

23. *Physician-patient trust eroded.* The committee believes that a patient's confidence in his or her physician and in the therapeutic process are essential components of any medical therapy. The data available strongly indicate that the current medical-legal environment has eroded physician-patient trust and undermined the therapeutic value of the physician-patient relationship (Chapter 5).

24. *Impaired relationship both cause and effect of liability.* The impairment of the physician-patient relationship is not only a consequence of the professional liability controversy in obstetrics but also a critical factor in perpetuating it. The committee believes that many medical malpractice claims are exacerbated by a breakdown in communication between doctor and patient, a mismatch between their expectations, or a failure of either to understand the nature of the relationship (Chapter 5).

25. *Impaired relationship costly.* The committee noted that the undermining of the physician-patient relationship by professional liability concerns—including the increased practice of defensive medicine (diagnostic tests and procedures done primarily in response to legal rather than medical concerns); the dissolution of the therapeutic alliance, which is often crucial to the healing process; and the avoidance of high-risk patients and procedures, which may ultimately lead to the need for more care—has significantly increased the cost of health care in this nation (Chapter 5).

26. *Physicians feeling besieged.* During the course of its deliberations, the committee formed the impression that a large segment of the medical profession regards itself as under siege. The committee found that in certain instances professional liability concerns have contributed to transforming the patient-physician relationship from a therapeutic alliance into a more adversarial interaction. The committee concluded that

this erosion of trust is undermining the delivery of obstetrical services in the United States (Chapter 5).

27. *Tort litigation system disrupting obstetrical practice.* The data documenting the effects of professional liability issues on the delivery of obstetrical care indicate that the traditional tort system is a slow and costly method of resolving obstetrical disputes and that it is contributing to the disruption of the delivery of obstetrical care in this nation. Moreover, the committee found that the threat of liability is having far-reaching effects on access to and availability of obstetrical care. The threat of liability encourages a variety of medically unnecessary procedures to be overused. Furthermore, health care providers have lost confidence in tort litigation as the preferred method of resolving claims related to medical maloccurrence (Chapter 7).

28. *Tort reforms an insufficient response.* Studies to date suggest that, although the tort reforms implemented since the mid-1970s may have reduced the increase in claims frequency and magnitude in some states, they have not had a dramatic effect on the costs, either direct or indirect, of the tort litigation system for resolving obstetrical malpractice claims. It is the committee's conclusion that tort reforms are not going to lessen the long-term incidence and severity of obstetrical malpractice claims enough and, therefore, will not lessen the attendant problems caused by the current professional liability climate in obstetrics (Chapter 7).

29. *Data on efficacy of alternatives lacking.* A number of alternatives to the civil justice system for resolving medical malpractice claims have been discussed in the past several years; however, there has been little practical experience with these alternatives in the United States. Accordingly, the committee found there is a limited data base on the costs of these alternatives, the claims frequency under these regimes, and their effectiveness in efficiently and fairly resolving medical claims (Chapter 7).

RECOMMENDATIONS

The committee has a modest number of recommendations to help lessen the recurrence of professional liability crises in the long run and to relieve some of the immediate problems stemming from professional liability concerns. The ultimate goal of all the committee's recommendations is to increase access to high-quality, affordable obstetrical care for all women, regardless of ability to pay, where they live, or where their care is delivered. In the committee's view a doctor-patient relationship based on mutual trust is essential to high-quality medical care. Although it is difficult to formulate a series of precise recommendations in this regard, the committee urges individual providers, provider groups, patients, insurers, the legal profession, policymakers, and educators to join in supporting this objective.

Long-Term Recommendations

1. *States should consider alternatives to the tort system.* The committee recommends that states focus their future reform efforts on developing alternative methods of resolving medical malpractice claims. Although there has been little practical experience with alternatives to the tort system for resolving medical malpractice claims in the United States, the committee determined that, based on the theoretical literature available, three alternatives appear particularly promising. The committee recommends that states evaluate these three proposals, among others, for implementation on a limited basis: the no-fault designated compensable events scheme (including the variants enacted in Virginia and Florida providing no-fault compensation for certain neurologically impaired infants); the AMA–Specialty Society's fault-based administrative system; and legislation authorizing the use of private contracts to stipulate medical professional liability arrangements or alternative procedures for determining liability between providers and patients.

2. *The federal government should support demonstration projects.* The committee believes that the primary responsibility for resolving the medical professional liability problem rests with the states, but it also believes that the federal government should stand ready to assist the states. To that end, it recommends that the federal government, through the Department of Health and Human Services, fund pilot projects for various solutions and studies of proposed state legislation.

3. *A national data base on malpractice claims should be developed.* The federal government, through DHHS, should assist in the development of a national data base on medical malpractice claims to assist the states in their efforts to understand and solve the medical professional liability problem. The Health Care Quality Improvement Act of 1986 mandates a data bank for information related to licensing, sanctioning, and disciplining of health care providers. The committee approves of this legislation but believes that a more extensive data base is required to facilitate further study of the problem. It recommends that the national data base include required disclosures by medical malpractice insurers regarding rates, payouts, settlements, and claims; by hospitals and hospital groups and other providers and provider groups regarding claims; and by relevant state agencies.

4. *Systematic technology assessment is needed.* The committee joins other groups, such as the Health Care Financing Administration's Ef-

fectiveness Initiative, the National Center for Health Services Research's Health Care Technology Assessment Program on Outcomes Research, and the Institute of Medicine's Council on Health Care Technology, in recommending that sufficient primary data be generated to determine the safety, effectiveness, and other attributes of new technologies relevant to obstetrics and other fields of medicine. The committee's examination of EFM and other practice changes in obstetrics has led it to conclude that systematic effort is required to establish the appropriateness, reliability, and effectiveness of new medical procedures before they are widely disseminated and become the accepted standard of care.

Short-Term Solutions

5. *States should address the access problems of the poor at once.* Although the committee believes that efforts to develop alternatives to the tort system hold the most promise, the committee also urges states to address immediately the disruptions and deterioration in maternity services for the poor that have been worsened by professional liability concerns. The committee recommends that the states and the federal government consider several short-term solutions simultaneously with their efforts to resolve the medical professional liability crisis generally. These appear as recommendations 6 through 8 below.

6. *Federal Tort Claims Act Coverage, or its equivalent, should be extended to certain obstetrical practitioners.* To lessen the immediate problems posed by professional liability issues in government-financed Community and Migrant Health Centers, Congress should authorize the extension of the personal immunities offered by the Federal Torts Claims Act, or equivalent coverage, to all practitioners of obstetrical care at these centers. Such an action would relieve practitioners of steep malpractice insurance and of personal liability, while providing plaintiffs a legal remedy.

7. *States should contribute to professional liability coverage for Medicaid providers.* As a temporary measure to ensure full access to obstetrical care for women whose care is financed partly by Medicaid, the committee recommends that other states follow the examples of Missouri, Hawaii, and Montgomery County, Maryland, which have taken actions to reduce the professional liability risk of providers of obstetrical services to poor women. The committee recommends that, until the obstetrical professional liability issue is fully resolved, states should implement programs that would either indemnify or subsidize the medical professional liability insurance premiums of obstetrical providers who participate in Medicaid or otherwise provide care to low-income women.

8. *The National Health Service Corps should be expanded.* The committee recommends that the National Health Service Corps, whose resources have been severely restricted in recent years, be revived and expanded. Congress should reinstate general scholarships, expand the program of scholarships for students with exceptional financial need, and increase loan repayment options to increase the number of physicians in underserved areas.

Glossary

Ad damnum clause: The clause of a plaintiff's complaint that contains a statement of the plaintiff's money loss or the damages that are claimed.

AMA–Specialty Society proposal: A fault-based administrative system for resolving medical malpractice claims. Proposed by the American Medical Association and 32 medical specialty societies, this system would replace the existing civil justice system with one whereby claims would be resolved by reviewers and examiners under the jurisdiction of strengthened state medical boards or new state agencies.

Amniocentesis: A procedure during pregnancy by which the abdominal wall and fetal membranes are punctured by a cannula (a small tube) to withdraw amniotic fluid for testing.

Apgar score: A method for estimating the severity of birth asphyxia by rating certain physical signs, including color, heart rate, respiration, reflex response to nose catheter, and muscle tone. It is determined at 1 minute and at 5 minutes after birth. The lower the score, the more severely asphyxiated the infant; infants with low Apgar scores are more likely to have residual brain damage.

Arbitration: An alternative to a formal court hearing. The hearing and determination of a case between parties in controversy by a person or persons chosen by the parties or appointed under statutory authority instead of by a judicial tribunal provided by law.

Asphyxia: Suffocation owing to oxygen deprivation, resulting in anoxia (failure of oxygen to reach or be utilized by body tissues) and carbon dioxide accumulation in the body. Perinatal asphyxia is due to placental or neonatal pulmonary dysfunction and may occur before or during labor or after delivery when effective spontaneous breathing is not initiated.

Attorneys' fees: The charges made by attorneys for services in representing a client. A contingent fee is an arrangement that depends on a successful outcome in the case and is usually a percentage of the plaintiff's monetary recovery. Caps on attorneys' fees are limits on the amount attorneys may charge for their services.

Bradycardia (fetal): Abnormally slow heart rate.

Breech presentation, delivery: The position of a fetus whose buttocks or feet (rather than head) present at the head of the birth canal during labor. Varieties include frank breech, in which the buttocks are presented and the legs are extended along the trunk; complete breech, in which the buttocks are presented and the legs are crossed indian-style; and footling breech, when one or both legs are extended and present first.

Captive insurance company: One owned by providers, such as a hospital or a group of physicians.

Cerebral palsy: One of the more common forms of brain damage in the infant, it comprises a group of diverse, nonprogressive disorders of the central nervous system. Quadriplegia (paralysis of both arms and legs) and hemiparesis (muscle weakness or partial paralysis on one side of the body) are characteristic manifestations, and mental retardation, seizures, and dystonia (muscle tone disorders) may be present.

Cesarean section: Delivery by surgical incision in the body of the uterus within the abdomen. Two general types of incisions are used: *classical,* which is longitudinal and is made in the upper segment of the uterus; and *lower segment,* or cervical, which is transverse and is made in the lower portion of the uterus.

Chorionic villi sampling: A procedure for diagnosing genetic disorders, it involves removing and examining a small piece of the membrane (chorion) surrounding the developing embryo. The sample is removed through the cervix by means of a minor suction procedure. The procedure causes mild discomfort and carries a small risk of miscarriage.

Claim: A petition asserting the right to money or property because of an injury. The *severity* of claims refers to the size of awards and settlements; the *frequency* of claims refers to the number of claims paid out per capita.

Claims-made policy: See Malpractice insurance contract.

Collateral source rule: If the plaintiff receives compensation for injuries from a source wholly independent of the defendant, that compensations not be deducted from whatever damages the defendant must pay. Some states have enacted provisions to offset this rule, that is, to reduce the amount the defendant must pay by whatever the amount of the plaintiff's other awards, if any.

Community Health Centers and Migrant Health Centers: Federally funded clinics providing primary health care services, including perinatal services, to medically underserved and disadvantaged populations who would otherwise not have access to such care.

Contingent fee: An arrangement between attorney and client whereby the attorney agrees to represent the client for a percentage of the amount recovered: for example, 25 percent if the case is settled, 30 percent if the case goes to trial. This fee arrangement is common in personal injury actions.

Cream skimming: A practice by insurers of covering only the lower risk individuals who fall into any given category. In the case of medical malpractice insurance, an insurer would cover only physicians believed to be at low risk.

Designated compensable events (DCE) system: A proposal for compensating medical malpractice claims based on a listing of medical injuries that are strongly associated with negligence and that would be compensated without regard to fault. This option allows liability claims to be moved out of the tort system into an insurance system that would compensate victims of certain specified maloccurrences.

Dumping: Denial of services or hospital admission because of inability to pay.

Electronic fetal monitoring: A procedure for monitoring the fetus during labor to determine its well-being. Initially thought to be a useful means of detecting asphyxia, EFM can be done externally (using ultrasound), internally (by attaching electrodes to the fetus to obtain an EKG), or sequentially (using both techniques). Testing the pH of a blood sample from the scalp of the fetus is an integral part of EFM.

Employment Retirement Income Security Act: Law requiring employers with pension plans to allow employees to join within a reasonable time after starting work. It ensures that money will be there to pay pension benefits when due; that employees are informed of their rights under the plan; and that, if an employee is denied a pension, the denial can be reviewed.

Experience rating: The practice of basing professional liability insurance premiums on a group's claims experience.

Family physicians: General practitioners whose comprehensive specialty takes into account social, physiological, economic, cultural, and biological dimensions of health care. Education and training include four years of graduate medical school and three years of residency.

Federal Tort Claims Act: A limited waiver of sovereign immunity, the FTCA establishes the circumstances under which an injured party may sue the United States under circumstances in which the U.S. government, if it were a private person, would be liable.

Fee-for-service: A method of paying physicians whereby the physician charges a fee for each service performed.

Forceps delivery: Extraction of an infant from the mother during labor by means of forceps, a double-bladed instrument, applied to the infant's head. *Midforceps delivery* refers to use of the instrument after the infant's head has entered the birth canal but before it has reached the lower part of the birth canal. *Outlet forceps delivery* refers to use of the instrument when the infant's head is visible at the outlet of the birth canal.

For-profit hospitals: Institutions and multihospital systems that are owned by individuals and corporations, to whom profits are distributed.

Freestanding birth centers: Facilities providing comprehensive maternity care to women anticipating a normal childbirth, at a cost less than that of in-patient hospital delivery.

General practitioners: Physicians who have completed medical school and one year of internship and whose practice is not limited to a specialty.

Health maintenance organization (HMO): An organization providing comprehensive health care for a fixed monthly premium per member; premiums are paid to the plan and do not vary with utilization of services. In a staff model HMO, participating physicians are salaried employees of the HMO.

High-risk women: Women who are statistically more likely to be at risk and to experience a bad outcome of pregnancy, particularly higher rates of infant mortality and low-birthweight infants.

Hill-Burton uncompensated service obligations: Obligations set forth in certain regulations issued pursuant to the Hill-Burton Act [42 U.S.C. §§ 291, 300. et. seq. (1976)] that impose specified obligations for community service and charity care on hospitals that receive funds under the Hill-Burton Act.

Indemnification: Security against loss or damage that may occur in the future and the provision of compensation for loss or damage already suffered—that is, insurance.

Indemnity payments: Money paid in compensation for hurt, loss, or damage.

Infant mortality rate: Number of deaths per 1,000 infants in the first year of life.

Informed consent: The name for the general principle of law describing the physician's duty to disclose to the patient the risks involved in a proposed course of treatment, as well as the optional or alternative courses of treatment available, so that the patient may intelligently exercise his or her judgment by balancing the probable risks of the procedure against the probable benefits.

Joint and several liability: A situation in which one or more of the parties to an action may be sued separately or all together at the option of the plaintiff.

Joint underwriting association (JUA): Nonprofit pooling arrangement created by a state legislature to provide professional liability insurance to health care providers in that state. Although intended to be self-supporting through premiums collected, some JUAs can assess policyholders for deficits. Deficits exceeding what can be recouped from policyholders are generally covered through assessments of any company authorized to write casualty insurance or specified lines of insurance in the state.

Liability (in tort): The legal responsibility of a wrongdoer for a civil wrong that causes an injury.

Malpractice: Professional misconduct or unreasonable lack of skill. This term is usually applied to conduct by doctors, lawyers, and accountants. Medical malpractice is commonly defined as any deviation from the accepted medical standard of care due a given patient that causes injury.

Malpractice insurance contract: An agreement by an insurance company to accept, in return for a fee, or *premium,* financial responsibility for payment of any claims up to a specific level of coverage during a fixed period. It is the insurer's responsibility to investigate and defend any claims made against the insured under the terms of the contract. Under an *occurrence-based* policy, the insurance company is liable for any incidents that occurred during the period the policy was in force, regardless of when the claim is filed. A *claims-made policy* provides coverage for malpractice incidents for which claims are made while the policy is in force. A *tail policy* is a special policy to cover residual claims.

Medicaid: A joint federal–state program under which the federal government sets basic standards and provides matching funds and the states establish eligibility, benefits, and reimbursement rates to provide health care to the poor. States that participate in the program must cover the *categorically needy,* that is, persons eligible for cash welfare benefits, and may also cover the *medically needy,* that is, persons whose incomes are high enough to disqualify them from cash assistance but not high enough to pay their medical bills. The programs play a critical role in providing financial access to obstetrical services for low-income women.

Metropolitan areas: Areas with a center city (or twin cities) of 50,000 or more, together with surrounding, economically related jurisdictions.

Morbidity: A diseased state or symptom, the incidence of disease, or the rate of sickness.

Mutual, reciprocal insurance company: One owned by providers, such as a medical society.

Myers-Briggs personality test: A personality type indicator in which 166 items are scored for four Jungian polarities: extraversion-introversion, sensation-intuition, thinking-feeling, and judgment-perception.

National Health Service Corps (NHSC): Professionals repaying medical education scholarships and loans by working in medically underserved areas. Physicians serve one year for every year of training they receive under NHSC funding.

No-fault compensation: A method for compensating victims of medical maloccurrence without determining fault.

Not-for-profit hospitals: Hospitals and multihospital systems, traditionally run by religious groups, whose capital and revenue have historically come from charitable donations and governmental grants but are increasingly being obtained from billing for services. They can and do make profits (usually termed a surplus).

Nurse-midwifery: The independent management of the care of essentially normal newborns and women antepartally, intrapartally, postpartally, and gynecologically within a system that provides for physician consultation. Certified nurse-midwives are individuals educated in the two disciplines of nursing and midwifery who are certified by the American College of Nurse-Midwives.

Obstetrician-gynecologists: Physicians whose practice covers pregnancy and childbirth and diseases of women, particularly those affecting the sex organs. Educational requirements include four years of graduate medical school, three of which are in obstetrics-gynecology, and at least three years of residency.

Occurrence-based medical malpractice policy: See Malpractice insurance contract.

Oxytocin: A hormone that stimulates contractions of the uterine muscle; used to induce or speed labor.

Premature labor: Onset of labor with effacement and dilation of the cervix before 37 weeks of gestation.

Prenatal care: Physical examinations and laboratory tests at regular intervals during pregnancy.

Premium: See Malpractice insurance contract.

Presumptive eligibility: An option that allows providers to assume a patient is eligible for Medicaid, based on his or her statement of income, and to render services for a specified period of time while the Medicaid application is being processed.

Pretrial screening: Evaluation of medical malpractice claims before they enter the court system. Screening is generally mandatory but not binding, and the findings are generally admissible in a subsequent trial, although they are not conclusive. States differ in the number, composition, and method of selection of members of screening panels, in the type of evidence that will be reviewed, and in the rules regarding subsequent admissibility of the panel's findings.

Provider mutuals, residuals: Insurance companies established by medical societies. The policyholders are the residual claimants to profit and the residual bearers of loss.

Purchasing groups: Groups that may provide or obtain liability insurance under an exemption from many state laws. They are permitted to obtain group policies from any insurer, including those not licensed in the state.

Randomized clinical trial: A controlled experiment requiring that individuals be randomly assigned to one of two or more treatments or program variations. The random assignment ensures that the estimated differences between the groups so constituted are statistically unbiased, that is, that any differences in effects can be ascribed to treatment.

Reserve: Money set aside by insurers for unknown contingencies.

Residual policy market: A situation in which premiums for insurance through a joint underwriting association are set, and liabilities in excess of premiums and interest income can be funded through assessments on other property and casualty insurance companies in the state.

Res ipsa loquitur: Literally, "the thing speaks for itself." A legal doctrine of presuming tort liability in certain circumstances.

Respiratory distress syndrome: A disorder, primarily of premature infants, occurring during the first days of life. It is characterized by difficulty in breathing and cyanosis.

Risk classification: A method used by insurance companies for ranking medical specialties by relative risk and setting premiums on that basis.

Risk management: Efforts by insurers to identify high-risk areas of medical care and to encourage more effective or appropriate methods of managing the risks of medical care. Risk management activities include data gathering and analysis, clinical standard setting and the development of protocols, education, and discounted premiums as incentives to involve physicians in risk management activities.

Risk retention groups: Groups that may provide or obtain liability insurance under an exemption from many state laws. They need only be licensed in one state to sell insurance in all 50.

Rural areas: Used in a general sense to describe nonmetropolitan areas.

Sliding fee scale: Fees based on family income.

Statute of limitations: A law prescribing the time period within which a particular legal action may be brought.

Structured payments: Awards for future losses made in installments throughout the plaintiff's period of disability instead of in a lump sum. This method of payment may reduce the total amount paid out.

Tail insurance: See Malpractice insurance contract.

Tort law: Branch of law, based largely on common law, permitting recovery through the judicial system for private or civic wrong or injury other than breach of contract.

Tort reforms: Legislation modifying common-law tort doctrine that is intended to relieve the medical liability crisis. Reforms enacted thus far are designed to moderate the frequency and severity of medical malpractice claims in order to control the cost and ensure the availability of professional liability insurance.

Toxemia: A condition, also known as preeclampsia, occurring in the latter half of pregnancy and characterized by an acute elevation of blood pressure and usually by swelling and protein in the urine.

Ultrasonography: A noninvasive, pulse-echo diagnostic technique that allows real-time uterine scanning and prenatal diagnosis. Pulses from an oscillating transducer produce bursts of ultrasonic energy that are directed into tissue. Dots produced on a display for each echo reflection coalesce and form an echo outline of the anatomic structures being examined. It is particularly useful for evaluating the viability and development of the fetus and for locating the placenta.

Underwriting: Ensuring the satisfaction of an obligation for loss or damage on consideration of a premium.

Vacuum extractor: An obstetrical instrument using suction rather than forceps in the second stage of labor.

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Appendixes

APPENDIX

A

Summary of Methodology Used in Studies of Changes in Obstetrical Practice

Appendix A summarizes the methodology of each study reviewed. Major differences among them and in their implications for the findings include the following.

Survey Population

The majority of the studies surveyed members of the society sponsoring the project. The proportion of all physicians who are members of a society varies both among specialties and geographically. Each of the American College of Obstetricians and Gynecologists' (ACOG) surveys used a stratified random sample of members based on the organization's nine geographical districts and the state of Florida. Residents, military personnel, and members outside the 50 states were excluded from all three ACOG surveys, and the 1987 survey also excluded Founding Life and Life Fellows (who are inactive practitioners). Ninety percent of all obstetrician-gynecologists are members of ACOG, but not all of the 90 percent are necessarily members of a state society. Conclusions drawn from these studies are based on the assumption that member physicians are representative of all practitioners.

Samples

Some of the studies drew samples of the membership, and others surveyed all members. For example, ACOG uses a sample of approximately one in four, and the American Academy of Family Physicians (AAFP) surveyed its entire membership. The majority of state-specific studies surveyed the relevant society membership, but a few (for example, Texas) drew a sample. When samples were drawn, the methods used appear to have varied among the studies.

Response Rates

These vary widely, from 23 percent in the Texas Medical Association 1985 survey to more than 80 percent in Alabama and in the 1985 Washington State surveys of family practitioners. The median response rate for the state studies was 60.2 percent. The total response rate for the 1987 ACOG survey was 48.4 percent ($N = 1{,}984$).

Phraseology

Questions were often imprecisely or suggestively worded. Almost all the studies sought to determine whether physicians were changing their practices or abandoning obstetrics altogether because of professional liability concerns. Certain survey questions were worded in such a way as to make it impossible to distinguish between situations in which the physician ceased the practice of obstetrics because of age, health, or simply boredom and situations in which professional liability was the predominant factor.

APPENDIX A Summary of Methodology Used in Studies of Changes in Obstetrical Practice

Study	Sponsor	Coverage	Survey Method	Response Rate	Time Period	Questions, Reasons	Comments
State-Specific Studies							
Alabama Sept. 1985	State medical association	Statewide; county medical society presidents	Mail	100%	Unspecified	Number of M.D.s discontinuing OB because of malpractice climate	
Oct. 1985	State academy of family physicians	Statewide; practicing	Mail	528 surveyed; 441 responses (84%)	5 years 1981–1985	9 choices; 2 malpractice-related	71 respondents never practiced OB
March 1986	State academy of family physicians	Statewide; members	Mail	533 surveyed; 366 responses (69%)	5 years 1982–1986	Malpractice concerns	Includes procedures besides OB; asked other malpractice-related questions
Arizona Oct. 1985	University of Arizona Rural Health Office	Rural counties (except Pima and Maricopa); OB-GYNs, GPs, FPs, OSTs	Telephone	191 eligible responses (88.8%): 34 OBs (100%); 29 OSTs (100%); 79 FPs (99%); 49 GPs (68%)	Discontinued or plan to discontinue because of malpractice concerns?	Includes 65 who had never delivered or ceased deliveries more than 3 years before	

APPENDIX A Summary of Methodology Used in Studies of Changes in Obstetrical Practice (*continued*)

Study	Sponsor	Coverage	Survey Method	Response Rate	Time Period	Questions, Reasons	Comments
California 1985	State medical society	Statewide; all OB-GYN members, 50% of FPs	Mail	3,498 surveyed; OB-GYNs, 67%; FPs, 53.6%	Unspecified	Changes because of professional liability situation	Data also tabulated by number of deliveries performed
District of Columbia July 1985	D.C. medical society	Citywide; OB-GYNs	Mail	152 surveyed; 73 responses (48%)	3 years 1983–1985	Open-ended; have you changed mode of practice? Reason?	Specific OB question—if not practicing OB, was malpractice the reason?
Georgia July 1985	State OB-GYN society	Statewide; members, including those not practicing OB	Mail	518 surveyed; 306 responses (59%)	2 years 1983–1985	Malpractice concerns; age; health; patients' attitudes	
Nov. 1986	State OB-GYN society	Statewide; practicing OB/GYNs	Mail	520 surveyed; 317 responses (61%)	3 years 1984–1986	Malpractice; age; health	
Idaho Oct. 1986	State medical society	Statewide; members	Mail	1,300 surveyed; 954 responses (73.4%)	Unspecified: "before crisis"	Changed practice as a result of malpractice crisis?	328 of total respondents practiced OB "before crisis"
Illinois June 1987	State health department	Statewide; all practitioners of OB (may be more com-	Mail	6,600 surveyed; 1,689 responses (25.5%)	1980–1984; 1985–1987	Cost of malpractice insurance; fear of suit; per-	

		plete outside Chicago)				sona; psychological stress; reimbursement	
Iowa Sept. 1985	State medical society; academy of family physicians	Statewide; FPs	Mail	746 surveyed; 354 responses (47%)	Unspecified; "recent changes"	Made recent changes because of malpractice? If yes, stopped OB, other?	Respondents' definitions of "recent" may differ
Kansas Oct. 1984	State medical society	Statewide; members	Mail	2,522 surveyed; 1,261 responses (50%)	Unspecified	Altered OB practice as a result of malpractice?	Cannot really tell when change occurred
Kentucky Nov. 1986	University of Louisville	Member OB-GYNs and FPs	Mail	943 surveyed; 330 responses (35%)	1978–1986	Unclear (questionnaire not included)	
Maryland 1986–1987	Johns Hopkins University School of Hygiene and Public Health	Statewide; medicine, OB-GYNs, and FPs	Telephone	615 eligible; 400 responses (65%)	1985–1987	Made changes as a result of malpractice? If yes, 9 more questions	Done as part of broader survey on cancer services, not solely malpractice
1986	State OB-GYN society	Statewide; practicing OB-GYNs	Mail	380 surveyed; 193 responses (51%)	Unspecified	OB care no longer delivered because of insurance, other	
Massachusetts Fall 1986	State OB-GYN society	Statewide; members	Mail	635 surveyed; 428 responses (67.4%)	1984–1986	When was last OB patient seen?	

APPENDIX A Summary of Methodology Used in Studies of Changes in Obstetrical Practice (*continued*)

Study	Sponsor	Coverage	Survey Method	Response Rate	Time Period	Questions, Reasons	Comments
Michigan Spring 1985	Michigan State University medical society, OB-GYN society	Statewide; members	Mail	560 surveyed; 314 responses (56%)	3 years 1983–1985	Stopped OB; tabulated by factors	If fees kept pace with cost, half would continue
Minnesota N.D.	State OB-GYN society	Statewide; members	Mail	146 responses (no universe given)	Unspecified	Changed practice significantly because of litigation?	Has different results than anyone else
Nevada Spring 1986	H.E. Crow (state health department)	Nonurban areas of state; OB-GYNs, FPs, and GPs	Telephone, informal survey	None apparent, counted physicians	1984–1986	None given	
New York Spring 1985	State OB-GYN society	Statewide; members	Mail	798 responses (response rate not stated)	Since 1980	Malpractice-related	
North Carolina Spring 1986	State OB-GYN committee	Statewide; OB-GYNs	Mail	620 surveyed; 418 responses (67.4%)	3 years 1983–1986	Made or intend to make specified changes because of cost of malpractice insurance and risk of suit?	55.5% of respondents had some health department prenatal or family planning patients

Ohio Feb. 1987	Medical College of Ohio; state academy of family physicians	Geographic; practicing members	Mail	400-person sample of 1,581 members; 282 responses (70.5%)	1980, 1985, 1987; predict to 1989	7 reasons, 2 malpractice-related, for stopping	
Oregon 1986–1987	State medical association	OB-GYNs and FPs	Mail	809 FPs (79%); 199 OB-GYNs (76%)	1984–1987	Several reasons; malpractice and personal	Copy currently available does not include detail on methodology
Texas 1985	State medical association	Statewide; random sample of members	Mail	4,000 surveyed; 928 responses (23.2%)	Unspecified	Limited practice by not performing following OB procedures because of professional liability insurance costs?	
1986	State medical association	Statewide; random sample of members	Mail	4,000 surveyed; 1,418 responses (35.4%)	Unspecified (might infer 1 year because of previous survey)	Insurance costs caused you to eliminate or limit OB procedures?	Asked whether reduced care to "indigent patients not in your continuing care"
Virginia Fall 1985	State OB-GYN society	Statewide; practicing OBs	Mail	620 surveyed, 423 responses (68%)	Unspecified	Giving up practice before you had planned;	

APPENDIX A Summary of Methodology Used in Studies of Changes in Obstetrical Practice (*continued*)

Study	Sponsor	Coverage	Survey Method	Response Rate	Time Period	Questions, Reasons	Comments
						would you reconsider if malpractice reform instituted?	
Washington Summer 1985	University of Washington	Statewide; active members of Academy of Family Practice	Mail	853 surveyed; 685 responses (80%)	5 years 1980–1985	Several reasons, malpractice and personal	
Fall 1985	University of Washington; state medical association	Statewide; members of association	Mail	351 surveyed; 243 responses (69.2%)	5 years 1980–1985		
Summer 1986	University of Washington	Statewide; OB-GYNs, FPs, GPs, NMs	Mail	2,615 surveyed (2,497 M.D.s; 118 NMs); 1,537 (58.8%) response rate	1 year 1985–1986	Discontinue OB? Primary reason: 4 choices, malpractice or personal, 4 reasons for stopping (2 malpractice, 2 personal), and others	
West Virginia Oct. 1985	State medical society	Statewide; members	Mail	Approximately 2,000 surveyed; 1,033 responses (51.7%)	Apparently 5 years (not clear)	How malpractice affected practice	Specifically asked if malpractice issues led to limiting Medicaid patients

National Studies							
American Academy of Family Physicians 1986	AAFP	Members	Mail	34,394 surveyed; 25,033 responses (72.8%)	At any time	"Ever curtailed OB practice because of cost or availability of insurance?"	Survey included questions on other subjects besides OB and malpractice
1987	AAFP	Members	Mail	34,896 surveyed; 11,753 responses (33.3%)	At any time	Dropped for malpractice or other reasons	No follow-up mailing done; 1986 had follow-up
American College of Obstetricians and Gynecologists 1983	ACOG; Porter and Novelli	Sample of fellows	Mail	Approximately 3,822 surveyed (20% of members); 1,915 responses (50.1%)	Unspecified	Made changes as a result of the risk of malpractice	Includes questions on other changes and impact on fees
1985	ACOG; Porter and Novelli	Sample of fellows	Mail	4,143 surveyed; 1,646 responses (39.7%)	Unspecified	Same as 1983	Includes questions on malpractice experience and premiums
Johns Hopkins University 1984	University study of fertility-related services	Sample, ACOG members graduating 1974–1979	Telephone and mail	1,420 surveyed; 1,193 responses (84%)	Unspecified (ever sued?)	NA	Examined factors influencing threat of actual litigation, not

APPENDIX A Summary of Methodology Used in Studies of Changes in Obstetrical Practice (*continued*)

Study	Sponsor	Coverage	Survey Method	Response Rate	Time Period	Questions, Reasons	Comments
							changing OB practice
MACRO, Inc. 1986	Report for U.S. Public Health Service	NA	Contacted over 200 organizations	NA	Recent (past couple of years)	NA	Study of specific examples of impaired access; also study in Florida
National Governors' Association 1987	NGA	Medicaid and MCH programs in all states (but not the District of Columbia)	Mail	100 surveyed; 81% response	Current	Reasons given by physicians for nonparticipation; reasons believed by agency	Survey to determine extent of participation problem caused by malpractice concerns (currently in press)
Tuscaloosa 1987	ACOG; Opinion Research Corp.	Sample of fellows	Mail	4,100 surveyed; 1,984 responses (48.4%)	Unspecified	Same as 1983 and 1985	Includes questions on malpractice claims and care of poor

NOTE: The following abbreviations are used: FP, family practice, family physician, or family practitioner; GP, general practice or general practitioner; MCH, maternal and child health; M.D., Doctor of Medicine; NM, nurse-midwife; OB, obstetrics or obstetrician; OB-GYN, obstetrics-gynecology or obstetrician-gynecologist; OST, osteopath or osteopathy.

APPENDIX

B

Summary of Study Results Regarding Changes in Obstetrical Practice

APPENDIX B Summary of Study Results Regarding Changes in Obstetrical Practice

Study	Physicians Responding	Changes (Eliminating or Reducing Obstetrics)	Effects on Access to Care (High-Risk or Medicaid Women)
State-Specific Studies			
Alabama Sept. 1985	County medical societies	154 physicians in 54 counties offered OB services; 87 discontinued OB because of "malpractice climate." Of 241 physicians, 36% dropped OB	17 of 54 counties have no OB care; 22 counties have no prenatal clinics
Oct. 1985	441 FPs (84%)	89 (20.2%) perform deliveries; 142 (32.2%) ceased in last 5 years: 70% cited cost of malpractice insurance; 79%, fear of suit; 24–29%, time (e.g., night work, share calls). 19 plan to stop in next 6 months	NA
March 1986	366 FPs (69%)	13.6% performing deliveries in 1986, compared with 56% 5 years earlier. 21% quitting OB because of "malpractice pressures"	Obstetrical care unavailable in 18% of communities that have FPs. Average distance to OB care for these patients is 29 miles
Arizona Oct. 1985	Physicians practicing OB in rural areas (88.8%)	26 (20.6%) of 126 physicians providing OB services stopped in 1982–1985; cost of malpractice insurance or threat of suit was primary reason for decision. 12 more plan to stop in following year	32.5% of FP-GPs stopped, compared with 9.3% of OB-GYNs. FPs are principal providers in smaller communities
California 1985	2,102 OB-GYNs and FP-GPs (60.2%)	5.9% of OB-GYNs and 32.3% of FP-GPs stopped performing deliveries; 5.8% of OB-GYNs and 4.2% of FP-GPs reduced volume; about 20% of OB-GYNs and FP-GPs considering stopping; 12% of OB-GYNs and 5% of GP-FPs considering reducing caseload; reductions principally among those with smaller caseloads	24% of OBs reduced high-risk care; 16% considering reduction. 31% of OBs and 26% of FP-GPs felt patients would not have access to complete prenatal care if they reduced their practice; 40% of both groups said patients would have to travel greater distance. Impact higher in rural areas

District of Columbia July 1985	73 OB-GYNs (48%)	22 of 73 dropped obstetrics; another 3 planned to. 70% said cost of malpractice coverage was "major factor" in decision to stop. (Note: 79% of respondents were over age 50; national median age for OB-GYNs is 45)	64% take new patients; 53% take high-risk; 16% take Medicaid OB patients; 25% take only Medicaid gynecology patients. 26% said malpractice costs were major factor in decision to accept Medicaid; 9% said minor factor
Georgia July 1985	306 OB-GYNs (59%)	251 had practiced OB; 26 of them (10.4%) stopped in 1983–1985. Of these, 65% (17) cited malpractice-related reasons; 61.5% (16) cited age or health (multiple responses possible). 37 more plan to stop; 26 cited malpractice as the only reason	NA
Nov. 1986	317 OB-GYNs (61%)	285 had practiced OB; 33 of them (11.6%) stopped in 1983–1986. 55% (18) cited malpractice as the sole reason for quitting; the rest cited malpractice and age or health. 83 more plan to cease OB practice in the immediate future because of malpractice—25% in next year	40% of respondents in south Georgia reported shortage of obstetrical services; 32% statewide anticipate shortage in their area. Maternal and Infant Care Council reports 70 counties without OB provider, compared with 56 in 1984
Idaho Oct. 1986	954 M.D.s (73.4%)	Of 328 practicing OBs "before the crisis," 85 (25.9%) stopped; another 38 (11.7%) plan to stop	NA
Illinois June 1987	1,689 M.D.s practicing OB (25.5%)	1,503 had practiced OB at some time; 631 no longer did; 64.4% had prior to 1984. Of 1,097 physicians practicing OB in 1984, 225 (20.5%) stopped between 1984 and 1986. 57% cited cost of malpractice insurance; 43.8% cited risk of suit. 8.2% of those currently practicing plan to cease OB	19% of practicing plan to reduce high-risk care; 17.3% plan to reduce Medicaid service. 22.6% of 631 total not providing OB; 22.6% cite low Medicaid reimbursement as a factor.
Iowa Sept. 1985	354 FPs (47%)	53 (15%) stopped OB "because of medical liability insurance" cost or availability	45% said OB-GYN services also available in the community; 93 (26.3%) reported average distance to an OB-GYN was 50 miles or more

APPENDIX B Summary of Study Results Regarding Changes in Obstetrical Practice (*continued*)

Study	Physicians Responding	Changes (Eliminating or Reducing Obstetrics)	Effects on Access to Care (High-Risk or Medicaid Women)
Kansas Oct. 1984	1,261 M.D.s (50%)	Of those practicing OB, 28% had stopped "as a result of the malpractice situation"; another 33% said they planned to (number who had been practicing OB not given)	NA
Kentucky Nov. 1986	330 OB-GYNs and FPs (35%)	36% stopped OB between 1978 and 1986; 19% had reduced volume of practice. 70% of those who stopped and 38% of those who reduced OB cited malpractice as a reason. 12% of those still practicing said they might stop OB, 86% because of malpractice	45% of physicians accept Medicaid OB patients. 75% of physicians who had reduced OB practice cited malpractice as reason for not accepting Medicaid. 43 of those who had not changed OB practice gave a malpractice-related reason for not accepting Medicaid.
Maryland 1986 Hopkins	400 OB-GYNs, FPs, and internists (65%)	69.4% of OB-GYNs and 48.9% of FPs changed practice because of malpractice. 7% of total reduced or eliminated OB—7.5% of 133 FPs and 14.3% of 134 OB-GYNs	30.6% of OB-GYNs and 20.3% of FPs report reducing high-risk care. No statistically significant relationship between levels of service to Medicaid patients and practice changes.
1986 OB-GYN society	193 OB-GYNs (51%)	143 (74%) provided OB in 1986; 40 of them (28%) plan to discontinue in 1987	70 (33.6%) report accepting Medicaid. Report fees of $800–$2,200 for vaginal delivery.
Massachusetts Fall 1986	428 OB-GYNs (67.4%)	Of the total, 275 practiced OB in 1986, compared with 360 in 1984—a reduction of 23.6%. Of the 85 who ceased OB, 14% stopped in 1984, 33% in 1985, and 53% in 1986	NA
Michigan Spring 1985	314 OB-GYNs (56%)	About 25% had stopped performing deliveries by 1985; another 25% are	48.7% report avoid high-risk patients due to malpractice. OB-GYNs who have

		considering stopping. Among those who stopped, there was no difference based on whether physician had experienced malpractice claim. Among those considering stopping OB, 19.8% had not had a claim and 27.7% had	stopped OB tend to have had smaller OB practices (less than 100 deliveries). 33% of Detroit OB-GYNs have stopped OB—much higher than other areas In rural areas 20% have stopped and 31% plan to. 63% said there are women unable to get care due to malpractice problem (69% of rural OB-GYNs, 69% of Detroit OB-GYNs)
Minnesota N.D.	146 OB-GYNs N.D.	33% had made "significant practice change" due to litigation. Only one had discontinued OB	
Nevada 1984–1986	Telephone surveys of M.D.s practicing OB	41 M.D.s in rural areas practiced OB in December 1984. 40% of these had stopped by May 1985 and another 20% in 1986, leaving about 25 rural M.D.s practicing OB. All except 1 said malpractice was the reason for stopping	NA
New York Spring 1985	798 OB-GYNs N.D.	127 of respondents (16%) have dropped practice of OB. 74 (10%) stopped between 1980 and 1985. 18% said they plan to discontinue OB because of malpractice	16% of those practicing OB do not provide high-risk care, due to malpractice
North Carolina Spring 1986	418 OB-GYNs (67.4%)	20% stopped OB due to malpractice insurance cost or risk of suit; 10% reported decreasing volume. No major difference as to whether change was due to malpractice cost or malpractice risk	22% reduced care to high-risk women; 232 (55.5%) have practiced in health departments; 68 (29%) report stopping due to malpractice
Ohio Feb. 1987	282 FPs (70.5%)	In 1980, 41% performed deliveries; in 1987, 21.3% did. 15% more FPs plan to stop by 1989, leaving 16% of FPs performing deliveries. The proportion providing prenatal care is higher (22.7% projected for 1989). About 49% cited	63% have never provided high-risk care. 75% of the 105 who have, either stopped or plan to stop

APPENDIX B Summary of Study Results Regarding Changes in Obstetrical Practice (*continued*)

Study	Physicians Responding	Changes (Eliminating or Reducing Obstetrics)	Effects on Access to Care (High-Risk or Medicaid Women)
		malpractice insurance costs as a major factor, and 49% cited time constraints. Fear of litigation was mentioned as important by 34%. The relation between malpractice concerns and the decision to stop performing deliveries during the past 5 years was statistically significant	
Oregon 1986–1987	809 FPs (79%); 19 OB-GYNs (76%)	151 of 603 physicians (25%) stopped OB between 1984 and 1987. 5.6% stopped in 1986–1987. Another 9.6% plan to stop in 1987. Malpractice insurance costs were the most important reason; also cited were malpractice risk, burden of indigent care, and stress of OB practice	24% of OBs and 44% of FPs will reduce or eliminate high-risk care. 13% recently stopped Medicaid participation, 33% limit Medicaid caseload, and 53% take unlimited Medicaid. 10% stopped taking charity cases and 47% take on case-by-case basis. 65% report access problems in their area
Texas 1985	928 OB-GYNs and FPs (23.2%)	21% of OB-GYNs and 34% of FPs did not practice OB because of "professional liability insurance costs"	NA
1986	1,418 OB-GYNs and FPs (35.4%)	14% of OB-GYNs and 37% of FPs eliminated OB. 21% of OB-GYNs and 11% of FPs limited their practices. (Year in which OB practice dropped was not asked)	10% of OB-GYN and 13% of FP caseloads are "indigent or have no medical insurance." 44% of FPs and 38% of OB-GYNs do not "limit care to indigent patients not under your continuing care." 19% of FPs and 35% of OB-GYNs limit such care "a great deal"
Virginia Fall 1985	423 OB-GYNs (68%)	25% gave up OB "sooner than planned"; 73% have considered giving up OB	NA
Washington Summer 1985	685 FPs (80%)	617 practiced OB in 1980; 198 (32%) stopped between 1980 and 1985. An additional 18% reduced OB volume. About 50% cited malpractice issues as primary cause	NA

Fall 1985	243 OB-GYNs (69.2%)	82% (200) currently practice OB. 39 (28% of total) stopped OB practice in last 5 years; 69 decreased volume. Reasons for change are mixed: 20% cite malpractice insurance costs, 17% risk of suit, and 18% competition for patients as key factor	65% of rural OB-GYNs would reduce OB practice if malpractice premiums increased 50%
Summer 1986	1,537 OB-GYNs, FPs, and NMs (58.8%)	40% of FPs, 15% of OB-GYNs, and 27% of NMs discontinued OB. Of those practicing OB, 10.6% of FPs, 15.4% of OB-GYNs, and 9.5% of NMs reduced volume between 1985 and 1986. 40% of FPs and 59% of OB-GYNs cited malpractice insurance costs or fear of suit as the reason for change. 39% of FPs, 32% of OB-GYNs, and 62% of NMs cited "personal concerns"	Average rural FP had higher caseloads (41 deliveries) than state average (32.3). OB-GYNs in semirural areas had lower caseloads. There were no OB-GYNs in rural areas. 41% of FPs and NMs and 26% of OB-GYNs do not limit Medicaid practice. 50% of FPs, 62% of OB-GYNs, and 37% of NMs limit the number of Medicaid patients served
West Virginia N.D.	1,033 M.D.s (50%)	No specific query as to whether M.D.s had dropped OB. 19% of OB-GYNs and FPs limit number of new patients. 58% of OB-GYNs considered leaving the state because of liability problem	40% of OB-GYNs and 18% of all M.D. respondents report not providing care to Medicaid patients due to "liability problem"
National Studies			
American Academy of Family Physicians 1986	25,033 FPs (72.8%)	72% practiced OB at some time. 23.3% discontinued OB because of "the cost or availability of liability insurance." 9.6% reduced volume or type of OB procedures	27% do not provide cesarean sections or complicated deliveries
1987	11,753 FPs (33.7%)	76.5% practiced OB at some time. Of these, 18.6% discontinued "because of liability insurance problems," and 8.9% decreased volume or type of procedures. 35.8% discontinued OB for other, nonmalpractice reasons	33.1% do not provide cesarean sections or complicated deliveries

APPENDIX B Summary of Study Results Regarding Changes in Obstetrical Practice (*continued*)

Study	Physicians Responding	Changes (Eliminating or Reducing Obstetrics)	Effects on Access to Care (High-Risk or Medicaid Women)
American College of Obstetricians and Gynecologists 1983	1,915 OB-GYNs (50.1%)	9.1% stopped OB "as a result of the risk of malpractice"; another 10.1% reduced volume	17.7% decreased high-risk care. Major regional variation in response: Florida (17.7% of OB-GYNs stopped OB); New York (17.9% decreased high-risk care); middle north region (22.2% decreased high-risk care)
1985	1,646 OB-GYNs (39.7%)	12.3% stopped OB "as a result of the risk of malpractice"; another 13.7% reduced volume. 54% stopped practice before age 55	23.1% reduced high-risk care. Major regional variation in response: Florida (24% of OB-GYNs stopped OB); New York (30% decreased high-risk care); Great Lakes region (21% decreased high-risk care)
1987	1,984 OB-GYNs (48.4%)	12.4% stopped OB "as a result of the risk of malpractice"; another 12.9% reduced volume. 67% stopped practice before age 55	27.1% reduced high-risk care. Regional variation as in previous years—Florida (25% stopped OB); districts 3 and 5 (more than 30% reduced high-risk care); New York (17% decreased volume)
Johns Hopkins University 1984	1,420 OB-GYNs (84%)	Study of fertility-related services included questions about threatened and actual malpractice litigation. Did not ask about stopping OB	No statistical significance between treating Medicaid patients and litigation; a negative relationship between litigation and treating minority patients

MACRO, Inc. 1986	200 national organizations (rate NA)	NA	Access problems in 33 states, occurring particularly (1) in OB, (2) among Medicaid and low-income patients, (3) in midwest and southeast, and (4) in rural areas
National Governors' Association 1987	100 Medicaid and MCH programs in 50 states (81%)	93% reported OB-GYNs stopping OB; 86% reported the same for FPs	75% of respondents report major problems in physician participation. Two-thirds report OB-GYNs reducing high-risk care; 60% say physicians are withdrawing from participation in public programs; and almost 70% report reduced participation
Tuscaloosa Family Practice Program April 1986	85 graduates (92.4%)	50% of graduates had practiced OB at some time; 29.4% were practicing OB in 1986. 12 of the 18 who stopped did so in 1985. Another 7 planned to stop after April 1986. 90% of those stopping after 1985 cited malpractice; 5 of the 6 physicians who stopped previously cited time	NA

NOTE: The following abbreviations are used: FP, family practice, family physician, or family practitioner; GP, general practice or general practitioner; MCH, maternal and child health; M.D., Doctor of Medicine; NA, not available; NM, nurse-midwife; OB, obstetrics or obstetrician; OB-GYN, obstetrics-gynecology or obstetrician-gynecologist.

APPENDIX

C

Summary of Study Results Regarding Professional Liability, Family Practitioners, and Rural Areas

APPENDIX C Summary of Study Results Regarding Professional Liability, Family Practitioners, and Rural Areas

Study	Physicians Responding	Results Regarding Family Practitioners	Results Regarding Rural Areas
State-Specific Studies			
Alabama Sept. 1985	County medical societies (100%)	154 physicians in 54 counties offered OB services; 87 discontinued OB because of "malpractice climate." Of 241 total physicians, 36% ceased OB practice	17 of 54 counties have no obstetrical care; 22 counties have no prenatal clinics
Oct. 1985	441 FPs (84%)	32.2% stopped OB in the last 5 years; 70% cited malpractice insurance cost; 79% fear of suit; 24–29% time (e.g., night work, share calls). 89 (20.2%) delivered babies	NA
March 1986	366 FPs (69%)	13.6% performed deliveries in 1986, compared with 56% 5 years earlier. 21% quit OB because of "malpractice pressures"	Obstetrical care unavailable in 18% of communities that have FPs. Average distance to OB care for these patients is 29 miles
Arizona Oct. 1985	Physicians practicing OB in rural areas (88.8%)	32.5% of FP-GPs stopped OB, compared to 9.3% of OB-GYNs. FPs are principal providers in smaller communities	26 (20.6%) of 126 physicians providing OB stopped between 1982 and 1985; cost of malpractice insurance or threat of suit was primary reason for decision. 12 more plan to stop in following year
California 1985	2,102 OB-GYNs and FP-GPs (60.2%)	32.3% of FP-GPs stopped performing deliveries and 4.2% reduced volume; about 20% are considering stopping, and 5% are considering reducing. (5.9% of OB-GYNs have stopped and 5.8% have reduced volume; proportion considering reduction is similar) Reductions occurred principally among those with smaller caseloads	26% of FP-GPs believed patients would not have access to complete prenatal care if they reduced their practice; about 40% of both FP-GPs and OBs said patients would have to travel greater distance. Impact higher in rural areas

APPENDIX C Summary of Study Results Regarding Professional Liability, Family Practitioners, and Rural Areas (*continued*)

Study	Physicians Responding	Results Regarding Family Practitioners	Results Regarding Rural Areas
Georgia Nov. 1986	317 OB-GYNs (61%)	NA	40% of respondents in south Georgia report shortage of obstetrical services; 32% statewide anticipate shortage in their area. Maternal and Infant Care Council reports 70 counties without obstetrical provider, compared with 56 in 1984
Idaho Oct. 1986	954 M.D.s (73.4%)	Of 328 practicing OB "before the crisis," 85 (25.9%) stopped; another 38 (11.7%) plan to stop	NA
Iowa Sept. 1985	354 FPs (47%)	53 (15%) stopped OB "because of medical liability insurance" cost or availability	45% said OB-GYN services also available in the community where they work; 93 (26.3%) reported the average distance to an OB-GYN was 50 miles or more
Kentucky Nov. 1986	330 OB-GYNs and FPs (35%)	36% stopped OB between 1978 and 1986; 19% reduced volume of practice. Declines greatest among FPs—60% stopped OB, compared with about 12.5% of OB-GYNs. 70% of those who stopped and 38% of those who reduced practice cited malpractice as a reason. 12% of those still practicing said they might stop OB; 86% because of malpractice	Significant regional variations in reductions (from 42% in one region to 22% in another)
Maryland 1986 Hopkins	400 OB-GYNs, FPs, and internists (65%)	48.9% of 133 FPs changed their practice because of malpractice. 7.5% of FPs reduced or eliminated obstetrics. 20.3% of FPs report reducing number of high-risk cases	NA

Michigan Spring 1985	314 OB-GYNs (56%)	NA	In rural areas, 20% have stopped and 31% plan to. 63% said some women are unable to get care because of malpractice problem
Nevada 1984–1986	Telephone surveys of M.D.s practicing OB	Family practitioners not distinguished from other providers of obstetrical care	41 M.D.s in rural areas practiced OB in December 1984. 40% of these had stopped by May 1985 and another 20% in 1986, leaving about 25 rural M.D.s practicing OB. All except 1 said malpractice was the reason for stopping
North Carolina Spring 1986	418 OB-GYNs (67.4%)	NA	232 (55.5% of respondents) have practiced in health departments; 68 (29%) stopped because of malpractice concerns
Ohio Feb. 1987	282 FPs (70.5%)	In 1980, 41% performed deliveries; in 1987, 21.3% did. 15 more FPs plan to stop by 1989, leaving 16% of FPs performing deliveries. The proportion providing prenatal care is higher (22.7% projected for 1989). About 49% cited malpractice insurance costs as a major factor, and 49% cited time constraints. Fear of litigation was mentioned as important by 34%. The relation between malpractice concerns and the decision to stop performing deliveries during the past 5 years was statistically significant	NA
Oregon 1986–1987	809 FPs (79%); 199 OB-GYNs (76%)	151 of 603 physicians (25%) stopped OB between 1984 and 1987. 5.6% stopped in 1986–1987. Another 9.6% plan to stop in 1987. Malpractice insurance costs were the most important reason; also cited were malpractice risk, burden of indigent care, and stress of OB practice	22% of FPs received part pay and 12% no pay for performing deliveries because patients were unable to pay. OB-GYNs averaged 12.5% and 8.1%, respectively. 65% report access problems in their area
Texas 1985	928 OB-GYNs and FPs (23.2%)	21% of OB-GYNs and 34% of FPs did not practice OB because of "professional liability insurance costs"	NA

APPENDIX C Summary of Study Results Regarding Professional Liability, Family Practitioners, and Rural Areas (*continued*)

Study	Physicians Responding	Results Regarding Family Practitioners	Results Regarding Rural Areas
1986	1,418 OB-GYNs and FPs (35.4%)	14% of OB-GYNs and 37% of FPs eliminated OB. 21% of OB-GYNs and 11% of FPs limited their practices. (Year in which they dropped OB practice was not asked)	NA
Washington Summer 1985	685 FPs (80%)	617 practiced OB in 1980; 198 (32%) stopped between 1980 and 1985. An additional 18% reduced OB volume. About 50% cited malpractice issues as primary cause	NA
Fall 1985	243 OB-GYNs (69.2%)	NA	65% of rural OB-GYNs would reduce OB if malpractice premiums increased 50%
Summer 1986	1,537 OB-GYNs, FPs, and NMs (58.8%)	40% of FPs discontinued OB. Of those still practicing OB, 10.6% reduced volume between 1985 and 1986. 40% cited malpractice insurance costs or risk of suit as the reason for change; 39% cited personal concerns (59% of OB-GYNs cited malpractice)	Average rural FP had higher caseloads (41 deliveries) than state average (32.3). 41% of FPs do not limit Medicaid practice; 50% do
West Virginia No date	1,033 M.D.s (50%)	19% of FPs limit number of new patients. 57% reduced risk exposure procedures; 17% considering leaving the state because of liability problems	NA
American Academy of Family Physicians 1986	25,033 FPs (72.8%)	72% practiced OB at some time. 23.3% discontinued OB because of "the cost or availability of liability insurance." 9.6% reduced volume or type of OB	NA

		procedures. 27% do not provide cesarean sections or complicated deliveries	
1987	11,753 FPs (33.7%)	76.5% practiced OB at some time. Of these, 18.6% discontinued "because of liability insurance problems," and 8.9% decreased volume or type of procedures. 35.8% discontinued OB for other, nonmalpractice reasons	NA
MACRO, Inc. 1986	200 national organizations (rate NA)	NA	Access problems in 33 states, occurring particularly (1) in OB, (2) among Medicaid and low-income patients, (3) in midwest and southeast, and (4) in rural areas
National Governors' Association 1987	100 Medicaid and MCH programs in 50 states (81%)	86% of FPs reported stopping OB	35 states report problems in rural areas. 14 states report 246 counties with no OB provider; 21 report 484 counties with limited access to care for public program clients
Tuscaloosa Family Practice Program April 1986	85 graduates (92.4%)	50% of graduates had practiced OB at some time; 29.4% were practicing OB in 1986. 12 of the 18 who stopped did so in 1985. Another 7 planned to stop after April 1986. 90% of those stopping after 1985 cited malpractice; 5 of the 6 physicians who had stopped previously cited time	NA

NOTE: The following abbreviations are used: FP, family practice, family physician, or family practitioner; GP, general practice or general practitioner; MCH, maternal and child health; M.D., Doctor of Medicine; NA, not available; NM, nurse-midwife; OB, obstetrics or obstetrician; OB-GYN, obstetrics-gynecology or obstetrician-gynecologist.

APPENDIX

D

State and National Liability Surveys Summarized

State Studies

Alabama	Medical Association of the State of Alabama. 1985. Survey on the availability of obstetrical care in Alabama. Montgomery. American Academy of Family Physicians, Alabama Chapter. 1986. Survey shows few family physicians still deliver babies. News release, February 28. Montgomery. Alabama Academy of Family Physicians, 1986. A survey of family physicians providing obstetrical care: A preliminary report. Montgomery.
Arizona	Gordon, R. J., G. McMullen, B. D. Weiss, and A. W. Nichols. 1987. The effect of malpractice liability on the delivery of rural obstetrical care. J. Rural Health 3:7–13.
California	California Medical Association. 1987. Professional liability issues in obstetrical practice. Socioecon. Rep. 25, nos. 6 and 7.
District of Columbia	Medical Society of the District of Columbia. 1985. Untitled narrative and malpractice questionnaire.
Georgia	Georgia Obstetrical and Gynecological Society. 1985, 1987. Manpower surveys. Atlanta. Georgia Obstetrical and Gynecological Society.

Studies *(continued)*

	1987. Georgia losing obstetricians. News release, January 28. Atlanta.
	Georgia Obstetrical and Gynecological Society. 1987. GOGS 1987 Survey Results. Atlanta.
Idaho	Roberge, R. T. 1987. Chairman, Idaho Section, American College of Obstetricians and Gynecologists. Personal communications.
Illinois	Illinois Department of Public Health. 1987. Changes in availability of obstetrical services in Illinois. Chicago.
Iowa	Iowa Medical Society and Iowa Academy of Family Physicians. 1987. Iowa family physician survey findings. West Des Moines.
Kansas	Kansas Medical Society. 1985. Professional liability survey. Kans. Med. 43.
Kentucky	Bonham, G. S. 1987. Survey of Kentucky obstetrical practice. University of Louisville, Urban Studies Center.
Maryland	Obstetrical and Gynecological Society of Maryland. 1987. Ob/Gyn Society of Maryland survey. Baltimore.
Massachusetts	Marcus, A. H. 1987. American College of Obstetricians and Gynecologists, District 1. Hanover. Personal communications.
	OBs flee Massachusetts, citing insurance rates. 1988. Washington Post. January 5.
Michigan	Block, M. 1985. Professional liability insurance and obstetrical practice. Study commissioned by the Michigan State Medical Society and the American College of Obstetricians and Gynecologists, Michigan Section. Lansing.
Minnesota	Minnesota obstetrics and gynecology practice survey summary. Minneapolis.
Mississippi	Wiygul, F. M., W. R. Gillis, and H. T. Milhorn. 1987. Obstetrical manpower in Mississippi: Who will deliver the babies? J. Miss. State Med. Assoc. 28:5–7.
Nevada	Crow, H. E. 1988. Southwest Medical Associates, Reno. Personal communication (not summarized).
New York	American College of Obstetricians and Gynecologists, District II. 1985. New York City.

Studies (*continued*)

North Carolina	North Carolina Obstetricians and Gynecologists Liaison Committee Survey and North Carolina Academy of Family Physicians. 1986. Malpractice: Reforms to protect access to quality care and legal rights. Prepared by Consultation and Research, Inc. Durham
Ohio	Smucker, D. R. 1988. Obstetrics in family practice in the state of Ohio. J. Fam. Pract. 26:165–168.
Oregon	Oregon Medical Association. 1987. The Impact of Malpractice Issues on Patient Care: Declining Availability of Obstetrical Services in Oregon. Portland.
Texas	Texas Medical Association. 1985. Texas Liability Crisis: Patient Care Impacts. Survey conducted by Opinion Analysts, Inc.
	Texas Medical Association. 1986. Professional Liability Insurance Survey. Prepared by Opinion Analysts, Inc. Austin.
Virginia	Virginia Obstetrical and Gynecological Society. 1985. Report of the Medical Malpractice Subcommittee. Harrisonburg.
	Virginia Obstetrical and Gynecological Society. 1986. Medical Malpractice Facts in 1986. Report presented to the Virginia General Assembly. Harrisonburg.
Washington	University of Washington, School of Public Health and Community Medicine. 1986. The Effects of Changes in the Medical Liability Market on Washington Obstetricians. Final Report to the Washington State Medical Association. Seattle.
	Rosenblatt, R. A., and C. L. Wright. 1987. Rising malpractice premiums and obstetric practice patterns: The impact on family physicians in Washington State. Western J. Med. 146:246–248.
West Virginia	West Virginia State Medical Association. 1985. Physican survey.

National Studies

American Academy of Family Physicians. 1986. The Family Physician and Obstetrics: A Professional Liability Study. Kansas City, Mo.

American Academy of Family Physicians. 1987. The Family Physician and Obstetrics: A Professional Liability Study. Kansas City, Mo.

American College of Obstetricians and Gynecologists. 1983. Professional Liability Insurance and Its Effects: Report of a Survey of ACOG's Members. Washington, D.C.

American College of Obstetricians and Gynecologists. 1985. Professional Liability Insurance and Its Effects: Report of a Survey of ACOG's Membership. Washington, D.C.

American College of Obstetricians and Gynecologists. 1988. Professional Liability and Its Effects: Report of a 1987 Survey of ACOG's Membership. Washington, D.C.

American College of Obstetricians and Gynecologists. 1988. Hospital Survey on Obstetric Claim Frequency by Patient Payor Category. Washington, D.C.

American Medical Association. 1987. Physician Characteristics and Distribution in the U.S. Chicago.

Macro Systems, Inc. 1986. Medical Malpractice Liability Coverage in the 1980s: Threat to Patient Access to Health Care? Final Report. Washington, D.C.

APPENDIX

E

Survey of Selected Risk Management Activities

The following commercial and physician-owned mutual insurance companies were included in the selective survey of risk management activities:

CNA Insurance Company
Colorado Physician Insurance Company (COPIC)
Cooperative of American Physicians, California
Doctors' Company Interexchange
Health Care Group
Illinois State Medical Insurance Exchange (ISMIE)
Medical Inter-Insurance Exchange of New Jersey
Medical Liability Mutual Insurance Company (MLMIC)
Medical Protective Company
Michigan Physician Mutual Liability Company
NORCAL Mutual Insurance Company
Parthenon Insurance Company
Pennsylvania Medical Society Liability Insurance Company (PMSLIC)
Pennsylvania Hospital Insurance Company (PHICO)
Physician Insurance Company of Michigan
PICO Group
PIE Mutual Insurance Exchange
Southern California Physicians Insurance Exchange (SCPIE)
The St. Paul Companies, Inc.
Utah Medical Insurance Association

The following organizations were also consulted:

National Association of Insurance Commissioners
Alliance of American Insurers
Commercial Casualty Insurance Companies
Physician Insurers Association of America
American Medical Association
American College of Certified Nurse-Midwives
American College of Obstetricians and Gynecologists
American Academy of Family Physicians

APPENDIX

F

Risk Management Activities and Experience Rating Policies of Selected Malpractice Insurers

APPENDIX F Risk Management Activities and Experience Rating Policies of Selected Malpractice Insurers

Best Ranking[a]	Company, Home State	Who Insured	Loss Prevention, Risk Management Activities Related to Physicians or Obstetrics	Claims Analysis Conducted	Use of Experience Rating, Surcharges for Physicians
1	The St. Paul Companies, Inc. Minnesota	Physicians, hospitals	Voluntary Increasing focus on physicians; in past, focus on hospitals Physician-profiling software for hospitals Reviews hospital obstetrics procedures Recommends placental core pathology studies for children born at risk	Yes	No Offers deductible options to lower premiums
2	Medical Liability Mutual Insurance Company (MLMIC) New York PIAA[b] member	Physicians, hospitals	Voluntary; discount offered Annual loss prevention seminar Recommends routine fetal monitoring	Yes; pooled data with PIAA	Yes
3	CNA Insurance Company Illinois	Physicians	Voluntary Loss control seminars Evaluation of group practice offices	—	No
4	Farmers Insurance Group California		Did not respond to survey		
5	Pennsylvania Hospital Insurance Company (PHICO) Pennsylvania	Hospitals, hospital-employed physicians, and groups	Required participation Hospital incident reporting evaluated for trends at facilities Evaluation of group practice offices	Yes; problem identification	No

APPENDIX F Risk Management Activities and Experience Rating Policies of Selected Malpractice Insurers
(continued)

Best Ranking[a]	Company, Home State	Who Insured	Loss Prevention, Risk Management Activities Related to Physicians or Obstetrics	Claims Analysis Conducted	Use of Experience Rating, Surcharges for Physicians
6	Medical Malpractice Insurance New York	Joint underwriting association	Did not respond to survey		
7	American International Group New York		Did not respond to survey		
8	Medical Protective Company Indiana	Physicians	Voluntary Newsletters and pamphlets Does not make specific recommendations that might become "standard of care" used against insured physicians	Yes, to identify practices and occurrences contributing to malpractice	—
9	Illinois State Medical Insurance Exchange (ISMIE) PIAA member	Physicians	Voluntary Seminars for physicians with large number of awards, new physicians, office and hospital staff Geared to recordkeeping, communications skills, some case studies Plans to develop specialty-specific seminars, including obstetrics	Yes, reviewing data base; plans to have physician committee draft reports on how physicians can reduce claims based on review	—

10	Southern California Physician Insurance Exchange (SCPIE) PIAA member	Physicians	Voluntary Loss prevention hotline Onsite workshops, seminars Risk analysis surveys Loss prevention newsletter Clinic managers seminar Telephone tape library	Yes, for rating to identify trends	Yes
11	Health Care Group New Jersey	Hospitals, physicians	Voluntary Seminars Library	Yes, for rating	—
12	Doctor's Company Inter-Exchange California PIAA member	Physicians	Voluntary Publications and newsletters, seminars on request Uses specialty-specific committees to review claims and identify practices to reduce loss and improve quality; recommendations distributed through newsletter For some specialties (not obstetrics), may make endorsements, strong recommendations	Yes, participating in PIAA analysis	—
13	Medical Inter-Insurance Exchange of New Jersey PIAA member	Physicians	Voluntary; discounts offered Loss prevention workshop Clinicolegal correspondence course Risk prevention in medicine correspondence course; separate chapter in text on obstetrics-gynecology New physician program for physicians in first year of practice; one-day seminar on company philosophy and peer review and risk	Yes	Yes Surcharge points given to physicians for claims; physician may earn offsetting credits by participating in workshops and correspondence courses Reduction of premium for physicians in first year taking new physician program

APPENDIX F Risk Management Activities and Experience Rating Policies of Selected Malpractice Insurers *(continued)*

Best Ranking[a]	Company, Home State	Who Insured	Loss Prevention, Risk Management Activities Related to Physicians or Obstetrics	Claims Analysis Conducted	Use of Experience Rating, Surcharges for Physicians
			prevention, focused on communication with patient and office-system problems Communication enhancement training seminar Newsletters		
14	Parthenon Insurance Company Tennessee	Hospital Corporation of America hospitals	Hospital oriented		
15	Michigan Physician Mutual Liability Company PIAA member	Physicians, hospitals	Voluntary; discount offered Workshops and newsletters Physician office audit No special emphasis on obstetrics-gynecology but programs twice annually	—	Yes Discount for physicians participating in programs and participating in office audit of recordkeeping
16	NORCAL Mutual Insurance Company California PIAA member	Physicians	Voluntary; discounts offered Correspondence course Group practice audits	Yes, to determine fault	Yes Discount for individual physicians completing correspondence course and test; requirement waived for physicians on committees dealing with malpractice Discount for groups that receive favorable rating on site visit, evaluating

					records, credentialing, practice protocols, and ongoing quality monitoring; type of procedures and claims experience also considered
17	PICO Group Ohio PIAA member	Physicians	Voluntary Ongoing loss control activities but no focus on high-risk specialties Workshop Newsletter	Yes	No
18	Physician Insurance Company of Michigan PIAA member	Physicians	Voluntary; discounts available Seminars Office audits Program for discounts if compliance with national standards of care is demonstrated	Yes	Yes Discounts for physicians meeting normal insurability criteria, attending annual risk management seminar, and receiving office audit Additional discount for physicians in high-risk practice showing evidence of following national standards of care Points system based on claims Modified deductible charged physicians exceeding certain claims threshold
19	Health Care Indemnity		Did not respond to survey		
20	PIE Mutual Insurance Exchange Ohio	Physicians	Voluntary Quarterly publication and newsletter	Yes	—

APPENDIX F Risk Management Activities and Experience Rating Policies of Selected Malpractice Insurers (*continued*)

Best Ranking[a]	Company, Home State	Who Insured	Loss Prevention, Risk Management Activities Related to Physicians or Obstetrics	Claims Analysis Conducted	Use of Experience Rating, Surcharges for Physicians
			Lecture courses with law firm Monitor continuing medical education courses taken by insured Physician office audit		
21	Colorado Physician Insurance Company (COPIC) PIAA member	Physicians	Some required activities; discounts offered Obstetrician-gynecologists required to use preestablished flow sheet for prenatal data and to administer ultrasound by 41 weeks and every week thereafter General seminars on risk prevention; will begin specialty-specific meetings Risk management program—physicians participating agree to abide by protocols concerning avoidable errors; must use prescribed consent form Incident reporting system	Yes; participates in PIAA analysis	Yes Point system used: loss of points for preventable claims; points earned for participation in risk management programs Physicians in risk management program can be surcharged up to $25,000 for failure to follow program requirements

22	Cooperative of American Physicians California	Physicians	Participation required 3-hour program required of new insured and physicians with 1 claim in last 2 years Physician-patient arbitration; 30% of physicians and all new obstetrician-gynecologists (who are required to) participate; tripartite arbitration Providing physicians with feedback from patient opinion survey on physician-patient relationships	Yes	Yes Surcharge on individual basis
23	Utah Medical Insurance Association PIAA member	Physicians	Participation required Practice manual in place 3 years; physicians must sign form stating they have read manual and will follow guidelines Manual includes protocol for obstetrics based on ACOG guidelines and reviewed by University of Utah physicians Required to attend seminar on manual at least every 2 years	Yes, limited; will review data to see if protocols have impact on number and amount of claims	Yes May impose surcharge on physicians with large number of claims of merit, based on review of committee of physicians blinded to outcome of case

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[a] A.M. Best Co. ranks insurance companies by size of gross written premium.

[b] Physician Insurers Association of America.

APPENDIX

G

Possible Modifications to the Virginia Neurological Birth-Related Injury Compensation Act

1. A provision granting the administering agency continuing jurisdiction for a finite period (perhaps two years from the date of the hearing; in any event, a period not to extend beyond the infant's fourth birthday) in those cases in which (1) it cannot be determined with a reasonable degree of medical certainty whether the infant comes within the definition of a compensable injury at the time of the hearing and (2) the medical evidence suggests that within the period of the continuance medical experts will be able to make such a determination.
2. An explicit provision requiring a court to remand for a decision to the administering agency any case in which there is a substantial question as to whether an infant comes within the provisions of the legislation.
3. An explicit provision making the final decision of the administering agency, and any evidence presented before it, admissible in a subsequent court proceeding.
4. A provision subrogating the program to the rights of a claimant for purposes of enforcing the claimant's right to reimbursement or expenses from any other entity.
5. A provision prohibiting any private entity providing health insurance or health care pursuant to a health maintenance organization (HMO) or preferred provider arrangement from writing into its policies an exclusion from coverage for any infant who receives an award under the legislation.

6. A provision explicitly requiring liability insurers to pass on to participating physicians and hospitals any potential savings resulting from their diminished risk as a result of the legislation.

7. An alternative funding mechanism. Possibilities include a voluntary assessment against participating hospitals, residency programs, and physicians practicing obstetrics (at the same time requiring a discount from liability insurers) and augmentation of this pool with general revenue funds from the state or a specific trust fund composed of public or private names. Any mandatory assessment against all licensed physicians should be particularly scrutinized; the program should not be perceived as a tax on physicians.

8. A notice provision requiring hospitals and physicians to tell their prospective patients whether they participate in the no-fault program; this notice should be drafted carefully so as not to disqualify an infant for a purely technical reason.

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